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Industry, Science and  
Technology Canada

Industrie, Sciences et  
Technologie Canada



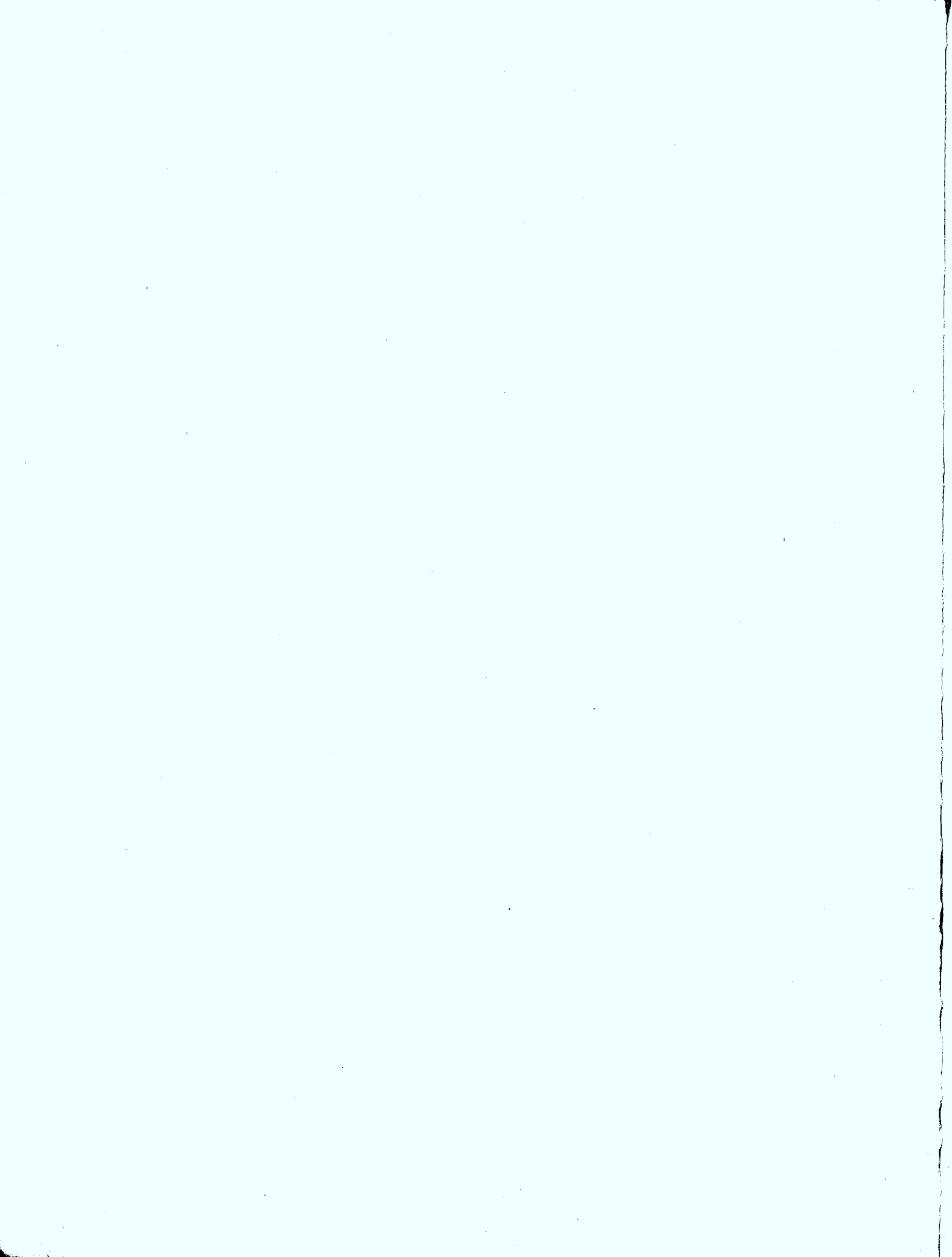
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# Annual Report

1989-1990

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Canada 



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# Annual Report

1989-1990

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Industry, Science and Technology Canada

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Ministre de l'Industrie, des  
Sciences et de la Technologie



Minister of Industry,  
Science and Technology

L'honorable      The Honourable  
Benoît Bouchard, c.p., député

His Excellency  
The Right Honourable Ramon John Hnatyshyn, P.C., C.C., C.M.M., C.D., Q.C.  
Governor General and Commander-in-Chief of Canada

Your Excellency:

I have the honour to submit the first annual report for the Department  
of Industry, Science and Technology.

The report shows the department's accomplishments during the  
1989-90 fiscal year and reflects the organizational structure of the department as of  
March 31, 1990, following proclamation of its founding legislation.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Benoît Bouchard', with a stylized flourish at the end.

Benoît Bouchard



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**W**ith the proclamation of its founding legislation on February 23, 1990, the Department of Industry, Science and Technology formally came into existence. The department styles its name *Industry, Science and Technology Canada*, *ISTC* for short.

Described in a Speech from the Throne as the government's flagship economic development department, ISTC's main responsibilities are to:

- ◆ develop and promote industry and science policies and programs to build a climate for sustainable, long-term economic growth;
- ◆ act as a reasoned advocate within the federal government for the interests of the industrial and scientific communities;
- ◆ encourage innovation, technology adoption and research and development (R&D) to improve competitiveness;
- ◆ foster and recognize excellence in industry, science and technology;
- ◆ support efforts of Canadian businesses to expand domestic and international sales; and
- ◆ champion the growth of a Canadian scientific community and culture.

The department is led by a Minister of Industry, Science and Technology and two colleague Ministers: The Minister for Science and the Minister of State (Small Businesses and Tourism).

ISTC's official launch marked the end of two years of intensive consultations and planning to merge key elements of the former department of Regional Industrial Expansion and the Ministry of State for Science and Technology into a new organization that can bring an integrated Government of Canada approach to improving Canada's prospects in the global marketplace.

One of ISTC's primary responsibilities is to help move innovation more quickly from scientific laboratories to Canadian businesses. And while it will deliver certain highly selective funding programs, the new department's role is mainly one of facilitator and catalyst, bringing together scientists, engineers, management, labour and capital into strategic alliances capable of developing and marketing high-quality, price-competitive goods and services.

In fulfilling this role the department's overall stock in trade is the gathering and disseminating of information — hard business and scientific intelligence that can help Canadian companies compete in world markets of the 1990s and beyond.

To ensure the widest possible distribution of this information and advice, the department maintains offices in every province and territory, providing easy access and professional assistance to all its clients. In each ISTC Regional Office, an International Trade Centre provides direct contact with the trade promotion services of External Affairs and International Trade Canada (EAITC).

Another key ISTC role is to act as an advocate within the government for Canadian science and business, particularly small and medium-sized businesses. In this respect, the department's Entrepreneurship and Small Business Office presented to Parliament its first report on the state of small business in Canada: *Small Business in Canada — Growing to Meet Tomorrow*.

In addition, ISTC will continue to be responsible for regional development in Quebec and northern Ontario, for Aboriginal peoples' economic development across Canada, and for the continuing development of the tourism industry.

This 1989-90 Annual Report describes the many programs, services and policy challenges which have occupied the new department in the start-up year.

## Science

The growing and critical role played by science in the Canadian economy has been recognized through the appointment of Canada's first-ever Minister for Science within the new ISTC.

The overarching challenge in this field is to help keep Canada abreast of the technological and entrepreneurial revolutions sweeping the industrial world.

The quest for excellence in science calls upon Canada to provide first-class scientific education, to bring together qualified people in state-of-the-art research facilities and to recognize the innovators and entrepreneurs who develop or apply science in business. One example of a major initiative implemented in the year under review is the five-year, \$240-million Networks of Centres of Excellence program, designed to encourage university-industry cooperation in research.

Another challenge to ISTC is to develop a culture of scientific awareness among Canadians so they gain a clear recognition of the key role that science and technology (S&T) plays in maintaining national prosperity and a high quality of life.

Through its programs and activities, ISTC is endeavouring to do this by:

- ◆ increasing public awareness of scientific and technological achievements and potential;
- ◆ stimulating greater public interest in, and awareness of, the role and impact of S&T in contemporary society;
- ◆ improving communications between scientists and non-scientists, between the creators and users of technology and between those who generate technological change and those who are affected by it; and
- ◆ developing greater interest in science among young people.

The importance of attracting more young people, particularly women, into scientific endeavours is underlined by the continuing five-year, \$80-million Canada Scholarships Program intended to encourage outstanding students to pursue degrees in the natural sciences and engineering fields. There are 2 500 scholarships awarded per year worth \$2 000 each and

renewable for up to three additional years. At least 50 percent of the scholarships are awarded to female applicants.

In 1989-90, there were more than 4 800 active Canada Scholars. Some \$10 million in scholarship support was awarded to undergraduates in 83 eligible post-secondary institutions. A total of 3 400 scholarships were awarded to students entering eligible fields; 52 percent of these students were women. More than 1 400 of 2 500 1988-89 Canada Scholars qualified for scholarship renewal.

InnovAction is the umbrella name given to a number of other ISTC efforts to improve Canada's performance in S&T. InnovAction is a five-part strategy designed to:

- ◆ encourage industrial innovation and technology transfer;
- ◆ support the development of strategic technologies;
- ◆ provide the management regime for the federal government's \$4-billion-a-year investment in science;
- ◆ increase the supply of scientists, engineers, technologists and technicians in Canada; and
- ◆ create a science culture through which Canadians clearly understand the importance of technological innovation.

## Industry

### *Strategic Technologies*

Certain technologies are considered strategic because they are capable of enhancing competitiveness in not one but many industrial sectors.

Three strategic technologies have been chosen for special attention within ISTC:

- ◆ **Information technology** refers to the combination of computer and communications technologies. It is broadly defined to include computer hardware and software, telecommunications, micro-electronics, instrumentation, process controls, advanced manufacturing technologies and artificial intelligence.

- ◆ **Biotechnology** is the use of living organisms or their components for the production of goods or services. Applications include genetic engineering, mass production of plant or animal cells, microbial fermentation, the production of antibodies and protein engineering.
- ◆ **Advanced Industrial materials** encompass technologies that permit the engineering of materials to meet specific and high-performance requirements. Examples include ceramics, plastics, alloys and superconductors, all of which add value to the products in which they are used.

### **Industry Competitiveness Profiles**

ISTC works to strengthen industrial sectors, not individual companies. In consultation with industry, the department has prepared more than 120 industry profiles which examine sectors ranging from automotive tires and banking to retail trade and wire products.

The profiles assess the global competitiveness of each sector, taking into account such factors as the worldwide trading environment, investment in R&D and the capacity to adapt new technology. Updated on a regular basis, the profiles are a major ISTC product, designed to provide an authoritative desktop reference library of industrial trends and prospects. They are distributed as an information service to more than 8 000 clients across Canada.

### **BOSS**

Canadian and foreign purchasers make extensive use of the Business Opportunities Sourcing System (BOSS), Canada's most authoritative and comprehensive listing of suppliers. Maintained by ISTC and the provincial governments, BOSS lists more than 20 000 Canadian firms and 70 000 products. Users can retrieve this information by product, service, location, size of company and other criteria.

On-line access to the data base is available to any company with a "smart" terminal or a personal microcomputer with communication capability. BOSS information also is available in semi-annual printed directories and on computer tape.

### **DISTCcovery**

DISTCcovery is a comprehensive data base of licences and patents available worldwide.

Along with a library of pamphlets, brochures and specifications, DISTCcovery lists thousands of offers for the North American rights to manufacture goods or offer new services.

DISTCcovery permits entrepreneurs to conduct customized searches for business opportunities or to tap into a network of advisory and intelligence sources. Users can quickly pinpoint sector specialists within ISTC as well as a variety of experts in provincial governments, Canadian research establishments and the worldwide network of technology development officers within EAITC.

### **Canada Awards for Business Excellence (CABE)**

Another key ISTC initiative is the annual presentation of the prestigious Canada Awards for Business Excellence in the following nine categories: invention, innovation, industrial design, labour/management cooperation, entrepreneurship, marketing, productivity, small business and quality.

Thirty-four such awards (11 gold, 11 silver and 12 bronze) were presented at a gala dinner held November 7, 1989. These awards represent Canada's highest recognition of business leadership, particularly in developing or applying S&T.

### **Tourism**

The tourism industry has been described as the sleeping giant of the Canadian economy.

A labour-intensive sector, tourism contains approximately 60 000 businesses, most of them small, and employs about 600 000 workers, providing five percent of all employment in Canada.

Tourism has become the nation's second-largest earner of foreign exchange behind the automotive sector.

In 1989, U.S. visitors to Canada spent \$4.3 billion, and overseas visitors spent a further \$2.6 billion, the total representing a 2.8 percent increase over the previous year.

## Regional Development

The new approach to industrial revitalization in Canada includes a renewed and decentralized emphasis on regional development.

Responsibility for regional development in Quebec and Ontario rests with ISTC. Initiatives in the remainder of the country are the responsibility of the Atlantic Canada Opportunities Agency and the department of Western Economic Diversification.

### Quebec

The past year saw the establishment of a new regional development structure at the Quebec Regional Office. Under the direction of the Associate Deputy Minister, the new office, with headquarters in Montreal, is divided into an Operations group and a Policy and Liaison group.

In September 1989, the department signed a Memorandum of Understanding (MOU) with the Municipality of Sept-Îles to fund the Aluminerie Allouette Inc. aluminum plant, and contributed \$5.1 million for infrastructure costs as well as \$20 million to the Aluminerie Allouette Inc. consortium.

In March 1990, eight existing sectoral agreements were extended by approximately one year. Seven received additional funding totalling \$150 million. Three federal programs were introduced in tourism, agri-food testing, fisheries testing and experimentation.

### Ontario

The Federal Economic Development Initiative for Northern Ontario (FedNor) is a special initiative for Northern Ontario (announced in July 1987) with funding of \$55 million over five years.

Operated from three offices — in Sault Ste. Marie, Sudbury and Thunder Bay — FedNor stresses the importance of local input into program design,

evaluation and decision-making. Projects are intended to range in size from \$15 000 to \$135 000 and contributions are non-repayable.

Of the \$5 million invested to date, some 50 percent has been invested in tourist accommodation, with retail and wholesale businesses representing another 20 percent.

## Aboriginal Economic Programs

ISTC is a major participant in the Government of Canada's new Canadian Aboriginal Economic Development (CAED) Strategy which envisions a network of Aboriginal entrepreneurs operating viable, sustainable businesses.

To avoid duplication, the Canadian Aboriginal Economic Development Strategy is a joint effort of three departments: ISTC, Indian and Northern Affairs Canada and Employment and Immigration Canada.

The ISTC consultative approach was used extensively to determine the new priorities for the Canadian Aboriginal Economic Development Strategy. On the basis of these discussions with Aboriginal leaders and communities and both Aboriginal and non-Aboriginal business people, a number of Aboriginal financial, sectoral and local development institutions were established to deliver business support and other services previously available only from governments or non-Aboriginal private enterprise.

ISTC is solely responsible for three Canadian Aboriginal Economic Development Strategy programs: the Aboriginal Business Development program, the Joint Ventures program (to allow links with existing firms) and the Aboriginal Capital Corporations program (to create Aboriginal lending institutions). The department shares responsibility with Employment and Immigration Canada and Indian and Northern Affairs Canada for the Research and Advocacy program.

# Financial Statement

## Industry, Science and Technology

### 1989-90 Expenditures

	IST <sup>1</sup>	RNED <sup>2</sup>	CPC <sup>3</sup>
	( \$ t h o u s a n d s )		
Operating and Capital Expenditures	229 394	27 655	-
<b>Grants</b>			
Grants under the Native Economic Development Program	-	999	-
Grants to non-profit organizations to promote economic cooperation and development	300	-	-
Grants under the Canada Awards for Business Excellence program	200	-	-
Grant to Working Ventures Inc.	2 000	-	-
Grant to the Royal Society of Canada	1 000	-	-
Grant to Socio-economic Promotion — East-end Montreal	-	100	-
Grant to Canada-Quebec Sub-agreement	8 910	-	-
Grant to Canada-B.C. Sub-agreement	4 232	-	-
Grant to Canadian Institute for Advanced Research	2 000	-	-
Grant to Canada Scholarships Program	9 491	-	-
<b>Contributions</b>			
Contributions under the <i>Industrial and Regional Development Act</i> and outstanding commitments under discontinued predecessor programs	50 589	-	-
Contributions under the Industrial and Regional Development Program	-	95 482	-
Contributions under the Defence Industry Productivity Program	300 909	-	-
Contributions under sub-agreements made pursuant to Economic and Regional Development Agreements/General Development Agreements with provinces	100 416	-	-
Contributions under sub-agreements made pursuant to Economic and Regional Development Agreements/General Development Agreements/Quebec	-	11 974	-
Contributions under the <i>Agricultural and Rural Development Act</i>	-	10 291	-
Contributions under the Shipbuilding Industry Assistance Program	8 678	-	-
Contributions under the Western Transportation Industrial Development Program	405	-	-

	IST <sup>1</sup> ( \$ t h o u s a n d s )	RNED <sup>2</sup>	CPC <sup>3</sup>
Contributions to non-profit organizations and commercial operations in support of tourism	376	-	-
Contributions under the Bas Saint-Laurent/Gaspésie Development Program	-	6 524	-
Contributions under the Aboriginal Economic Programs	-	61 256	-
Contributions for the Advanced Train Control System	1 662	-	-
Contributions under the Canadian Industrial Renewal Regulations	9 952	-	-
Contribution to the Innovation and Entrepreneurial Management Corporation of Canada Inc. and the Société en commandite pour la création d'entreprises	-	231	-
Contribution under the Ontario Shipyards Rationalization Program	1 453	-	-
Contribution to GMC/Suzuki	32 771	-	-
Contributions under the Atlantic Enterprise Program	2 028	519	-
Contributions to the Fraser Valley Independent Shakes and Shingles Producers	1 923	-	-
Contribution to Pétromont Inc.	781	-	-
Contributions to Marine Industries Limited	29 000	-	-
Contributions under the Technology Outreach Program and the Technology Opportunities in Europe Program	12 153	-	-
Contributions under the Northern Ontario Development Fund	-	6 654	-
Contributions under the Microelectronics Systems Development Program	4 316	-	-
Contributions under the Acid Rain Abatement Program	24 349	-	-
Contributions under the Special Program for the Thetford-Mines Region	-	952	-
Contributions under the Special Program for the Laprade Region	-	19 987	-
Contributions to non-profit organizations to promote economic cooperation and development	865	-	-
Contributions under the Eastern Quebec Development Plan	-	432	-
Contributions to the Atlantic Provinces Economic Council	28	-	-
Contributions to the Canada-China Trade Council	250	-	-
Contribution to pulp mill in Matane, Quebec	-	7 634	-
Contribution to the Commercial Arbitration Centre	25	25	-
Contribution to the National Entrepreneurship Policy	670	-	-
Contribution to the Centre de Création d'entreprises d'Alma Inc.	-	825	-
Contribution to the Canadian Maritime Industries Association	71	-	-
Contribution to the Geomatics Industry Association of Canada	27	-	-
Contributions under the new Regional Development Program	-	19 769	-

	IST <sup>1</sup>	RNED <sup>2</sup>	CPC <sup>3</sup>
	(\$ thousands)		
Contribution to Lavalin Inc./Hawker-Siddeley Trenton Works	6 891	--	--
(S) Liabilities under the <i>Small Businesses Loans Act</i>	21 363	--	--
(S) Insurance payments under the Enterprise Development Program	3 166	--	--
Contribution to Saskatchewan Advanced Communications Network	3 115	--	--
Contribution to National Institute for Magnesium Technology	1 050	--	--
Contribution to Sudbury Neutrino Observatory	167	--	--
Contribution to Strategic Technologies	229	--	--
Contribution to Information and Services	1 355	--	--
Contribution to Sector Campaigns	1 040	--	--
Contribution to Alouette Consortium	--	20 000	--
<b>Total Grants and Contributions</b>	<b>650 206</b>	<b>263 654</b>	--
<b>Total Budgetary Expenditures</b>	<b>879 600</b>	<b>291 309</b>	--
<b>Revenue</b>			
Canada Post Corporation	--	--	7 764
Enterprise Development Program	19	--	--
Industrial and Regional Development Program	--	202	--
Atlantic Development Board	404	--	--
<i>Atlantic Provinces Power Development Act</i>	10 605	--	--
Special Areas and Highways Agreement	9 745	--	--
Services and service fees	7 019	98	--
Refunds of previous years' expenditures	188 114	6 062	--
Adjustment to prior years' payables at year-end (PAYE)	15 831	--	--
Other non-tax revenues	828	47	--
ERDA Subsidiary Agreements (interim payments made on some agreements)	305	--	--
<b>Total Revenue<sup>4</sup></b>	<b>232 870</b>	<b>6 409</b>	<b>7 764</b>

1. Industry, Science and Technology programs.
2. Regional and Native Economic Development Program.
3. Canada Post Corporation.
4. In accordance with government accounting practices, amounts classified as revenues are credited to the Consolidated Revenue Fund.





# Headquarters

**T**he Science Sector was established as part of ISTC in recognition of the fact that excellence in science is essential to increasing the competitiveness of Canadian industry.

## Science Strategy and Federal Research Branch

### *InnovAction*

InnovAction, the federal strategy for S&T, was announced in March 1987. Under InnovAction, a number of specific initiatives have been taken by federal departments and agencies to strengthen Canadian industry by promoting industrial innovation and technology diffusion, development of strategic technologies, effective management of federal resources, development of human resources and public education.

InnovAction programs include the Networks of Centres of Excellence Program, the Canada Scholarships Program and the Public Awareness Campaign on Science and Technology.

InnovAction remains the cornerstone of ISTC efforts to foster scientific excellence and competitiveness in Canadian industry. The challenge now is to build on the success of InnovAction and take advantage of the emerging opportunities for cooperative action.

Cooperative action is the key to a comprehensive review of education in Canada, proposed by the Prime Minister and endorsed by the First Ministers at their conference in November 1989. This review will:

- ◆ assess Canada's human resource development needs;
- ◆ report on human resource requirements of the knowledge-based economy of the future;
- ◆ identify the results of the current educational system;

- ◆ develop recommendations that address the changes required; and
- ◆ examine ways of allocating resources more effectively with a focus on results.

This initiative will significantly affect the human resources priority of InnovAction.

The Sudbury Neutrino Observatory, to be built at the INCO Creighton Mine, is another outstanding example of cooperative action. The project is jointly funded by the federal government, the U.S. Department of Energy, the Northern Ontario Heritage Fund Corporation, the United Kingdom's Science and Engineering Research Council and Oxford University.

The Canadian government's direct contribution of \$35 million is more than half the total funding of the project. This sum, together with the loan of approximately \$300-million worth of heavy water to the observatory, demonstrates the government's commitment to other InnovAction priorities, including the effective management of federal resources and the provision of adequate research facilities for human resource development.

### *Review of Big Science Projects*

During the 1989-90 fiscal year, an Interdepartmental Committee on Big Science was established to review the various Big Science projects expected to be presented to the federal government for funding consideration. The department chairs this committee of science-based departments and central agencies.

Big Science projects involve basic and applied science and engineering; are conducted by a number of personnel working as teams; and are either carried on with expensive, single-purpose equipment and facilities, or involve a large-budget international project composed of numerous, but coordinated, projects.

## ***Technology Transfer from Government Laboratories***

Federal expenditures on R&D constitute 30 percent of the total R&D spending in Canada (\$2.5 billion of \$8.3 billion in 1989). It is important that the technological know-how, expertise and products resulting from these expenditures be managed to secure the greatest possible national benefit.

The department's mandate naturally leads to work with other federal departments and agencies to promote the most effective and efficient transfer of this technology to the private sector to support the development of a competitive industrial capacity and continued economic growth. ISTC has been active over the past year in related policy areas (such as intellectual property) under Crown contracts and at government technology centres.

ISTC is developing, in full consultation with other federal departments and agencies, a framework for technology transfer from government laboratories which will provide the principles and guidelines for a broader, longer-term approach to assessing current policies and developing new initiatives.

The application of this framework over the coming year to specific policy and program development issues will help expand and speed technology transfer from federal laboratories.

## ***Intellectual Property***

The department assists Consumer and Corporate Affairs Canada in refining Canada's intellectual property rules and practices. The challenge in this field is to deal effectively with the new issues arising from technological advances in such rapidly evolving fields as software and biotechnology.

During the negotiations on trade-related intellectual property rights issues under the current round of negotiations under the General Agreement on Tariffs and Trade (GATT), ISTC is providing advice and assistance to the Canadian negotiating team led by EAITC and Consumer and Corporate Affairs Canada.

With other federal departments and agencies, ISTC is reviewing government policy on intellectual property developed in the performance of R&D under Crown contracts for the procurement of goods and services. This review will focus on the rights and

responsibilities of industry and government as they affect the ownership and management of such intellectual property. In particular, it will set out the contractor's right to commercially exploit technology developed under contract.

## ***Annual S&T Overview***

The Strategic Overview of S&T activities in the federal government is the formal reporting mechanism to Cabinet in this field. It originated from the Decision Framework for Science and Technology of 1987.

In 1989, 20 science-based departments and agencies participated in the overview exercise. Its main theme was scientific excellence and competitiveness, with sub-themes of technology transfer, scientific personnel requirements and sustainable development.

Three major conclusions were reached. First, collaborative R&D is the preferred vehicle for technology transfer. Second, the government needs a better understanding of the potential, and the limits, of commercialization of federal S&T, as well as a systematic approach to rejuvenate scientific personnel. Third, federal government S&T development will play a leading role in sustainable development.

For the first time, the document will be distributed publicly among government, industry and university representatives.

## ***S&T Human Resources***

The 1989-90 fiscal year saw the department launch several initiatives to improve the management of S&T personnel in federal science-based organizations. In addition, it continued its efforts to revitalize its scientific community through a special recruitment pool of person-years that made it easier to recruit scientific research talent.

A revised classification plan was developed and is now ready for implementation. Management training for research managers was given particular attention. Two courses were developed and presented — one for directors of research policy and research organizations, a second for managers of research laboratories and programs. A third, for senior scientists and project leaders, will be developed next year.

### ***Extramural Performance Policy***

Under the existing Extramural Performance Policy, key science-based departments are required to review a portion of their S&T operations annually, to examine continuing performance in-house and to identify opportunities for the increased involvement of the private sector.

The legislation which created ISTC and defined its advocacy role for Canadian S&T, as well as the cancellation of the Unsolicited Proposals Program, necessitated a review of the Extramural Performance Policy.

To this end, a consulting contract will be issued next year, with the joint participation of Treasury Board Secretariat and ISTC, to update this policy.

### ***S&T Road Map***

The department developed terms of reference during the year under review for a study on S&T concentration clusters and linkages among government, industry and university organizations.

A long-term, multi-phase project will be undertaken next year, initially in the telecommunications sector, on how public and private sector goals are addressed. This project will establish a data base or "map" of the existing hubs and their interconnections. Telecommunications was chosen because of work already under way in the Science Sector as well as its maturity and private sector representation.

### ***Publications***

The 1989-90 *Strategic Overview of Science and Technology Activities in the Federal Government* is the third look at the programs and initiatives of 20 science-based departments and agencies. It addresses the themes of scientific excellence and competitiveness under the sub-themes of technology transfer, scientific personnel requirements and sustainable development.

This bilingual publication will be distributed widely in 1990 to government, industry and university representatives as well as to the general public.

### ***Environmental Industries Sector Campaign***

The Science Sector participates in the Environmental Industries Sector Campaign, focusing on the development of strategies for the use of S&T to address the needs of both the major industrial users and the producers of environmental goods and services. They will also help promote the development of environmental industries and work with resource processing industries to reduce the effects of pollution on the environment while enhancing the long-term competitiveness of these industries.

Alliances among industry, universities and government, and collaborative R&D are highlighted as priorities for the transfer and diffusion of Canadian environmental S&T from the bench to industry.

On March 5, 1990, the Deputy Minister and the Assistant Deputy Minister (Science) co-chaired a national workshop to launch a long-term sector consultation process with industry and university users and producers of environmental S&T. A complex series of contracts was awarded and a number of reports were completed on early ISTC options to develop critical S&T, the activities and capabilities of environmental S&T producers and the needs of major users.

## **University Affairs Branch**

### ***University Research***

The federal government has a major responsibility to encourage scientific and technological progress by supporting basic research and the training of highly qualified scientists and engineers in Canada's universities. In this way the government endeavours to promote closer research collaboration between universities and the private sector.

Most of the direct federal funding for university research is channelled through the three research Granting Councils: the Natural Sciences and Engineering Research Council (NSERC), the Medical Research Council (MRC) and the Social Sciences and Humanities Research Council (SSHRC). The department is responsible for coordinating the funding requests of the three councils in collaboration with other departments and agencies.

As part of the additional funding of \$1.3 billion for new S&T initiatives announced by the Prime Minister in 1988, the government increased the base budgets of the Granting Councils by \$200 million over the five years between 1988-89 and 1992-93.

This decision supplemented the five-year financial plan for the Granting Councils announced in the February, 1986 budget, which called for an expenditure of \$3.4 billion between 1986-87 and 1990-91. An additional \$320 million over five years was allocated to the Networks of Centres of Excellence and the Canada Scholarships Programs.

The Matching Policy announced in February, 1986 provides funds for the councils to match eligible private-sector contributions to university research. The policy was evaluated, and the results distributed widely in late 1989.

### ***Canada Scholarships Program***

Announced in 1988, the Canada Scholarships Program encourages more of Canada's best students, particularly women, to pursue undergraduate studies in the natural sciences, engineering or related disciplines in order to increase the supply of highly qualified research personnel in fields critical to Canada's industrial competitiveness. The department manages the five-year, \$80-million Canada Scholarships Program through the Association of Universities and Colleges of Canada, which reviews student applications and university nominations and recommends the scholarship winners.

The program awards more than 2 500 new scholarships annually, worth \$2 000 per year and up to \$8 000 over four years, to outstanding students entering the natural sciences, engineering or related disciplines. A minimum of 50 percent of the new scholarships awarded each year are allocated for women. Academic excellence underpins the selection and renewal of Canada Scholars.

In 1989-90, there were more than 4 800 active Canada Scholars. Some \$10 million in scholarship support was awarded to outstanding undergraduates in 83 eligible post-secondary institutions. A total of 3 400 new scholarships were awarded to students entering eligible fields, of which 52 percent was awarded to women.

More than 1 400 of the 2 500 students awarded Canada Scholarships in 1988-89 qualified for scholarship renewal.

To recognize the Canada Scholars, a national award ceremony was held on October 11, 1989, announcing the 1989-90 scholarship winners. In addition, Canada Scholars were honoured at a meeting of the National Advisory Board on Science and Technology; in 78 award ceremonies held by their post-secondary institutions; and at more than 150 high school events.

### ***Networks of Centres of Excellence***

The Networks of Centres of Excellence program, announced in January, 1988, supports leading-edge, fundamental research of importance to Canada's long-term industrial competitiveness, and the training of highly qualified research personnel. The department is responsible for ensuring the effective implementation of the program through the federal Granting Councils.

The \$240-million Networks of Centres of Excellence program budget was allocated on the basis of a competition involving the 158 applications received by the November-1988 deadline. All applications were evaluated by the 23-member International Peer Review Committee and an Advisory Committee to the Minister of State (Science and Technology) composed of eminent Canadians. The reports of both committees were made public.

On October 26, 1989, the Minister of State (Science and Technology) announced the 14 networks selected by the government for funding from the Networks of Centres of Excellence program budget. Joint federal funding for the fifteenth and final network will be announced on April 9, 1990.

The selected networks conduct research in such key areas as biotechnology, disease control and treatment, human and natural resources, industrial materials and processes, information technology, and atmospheric research. Participants in the 15 networks include some 35 universities, 37 major industrial bodies, and 500 researchers in the social, medical and natural sciences, as well as in engineering.

### ***Canadian Institute for Advanced Research***

The Canadian Institute for Advanced Research is a private, non-profit corporation established to develop world-leading research programs on complex economic and social issues. The programs link outstanding scientists and scholars based in Canada with those in other countries. The Institute's activities range from artificial intelligence and robotics to cosmology, evolutionary biology, population health and superconductivity.

In 1989-90, the federal government provided the Institute with \$1.5 million to match contributions it received from the private sector. Through ISTC, the federal government is providing funding of up to \$7 million to the Institute to match such contributions from 1987-88 to 1990-91.

### ***Royal Society of Canada***

The Royal Society of Canada was established by an Act of Parliament in 1883 and has received federal government funding since that time. The society's network of approximately 1 200 fellows provides respected, independent advice on issues of vital interest to government, business, the academic community and the general public.

Examples of the society's work include leadership of the Canadian component of the International Geosphere-Biosphere Program (Global Change); promotion of public awareness of S&T; a 1988 report on the medical, social, ethical and legal dimensions of AIDS; and a report on tobacco and health.

In May 1989, the federal government approved a grant, to be provided through ISTC, of up to \$5 million over five years to help the Royal Society of Canada implement its plans for corporate development, research evaluation and the advancement of women in scholarship. The sum of \$1 million was paid in 1989-90.

### ***Canadian Committee on Women in Engineering***

In February 1990, the Minister for Science and the Minister of Employment and Immigration/Minister Responsible for the Status of Women, announced federal funding for a private-sector-led committee to improve the professional climate for women in engineering and those considering a career in the field.

During its two-year existence the committee will receive briefs and hold discussions across Canada. A report on its findings will be validated at a public forum in May 1991.

## **Public Awareness Campaign Secretariat**

On January 14, 1988 at the National Conference on Technology and Innovation, the Minister of State (Science and Technology) announced a long-term national effort to raise public awareness of the importance of S&T to Canada's economic growth and quality of life.

This effort consists of the Science Culture Canada Program and the Science and Technology Public Awareness Campaign. A Public Awareness Campaign Secretariat was established within the Science Sector of ISTC to manage both these initiatives.

### ***Public Awareness Campaign***

Over the past two years, the department has continued to emphasize the importance of S&T and to promote S&T on the public agenda through its Public Awareness Campaign.

With the full support and cooperation of provincial and territorial governments, scientific and engineering communities and the private sector, the campaign has acted as a catalyst to build a foundation for change.

Campaign activities undertaken in 1989-90 include the following:

- ◆ joint initiatives — with provincial and territorial S&T and education ministries involving hundreds of teachers, parents, scientists and students — designed to promote science teaching nation-wide;
- ◆ advertisements aimed at young Canadians — designed to change negative images and portray S&T career options as exciting, relevant and rewarding — placed in shopping malls, buses and bus shelters across Canada;
- ◆ development of a travelling interactive computer exhibit and promotional materials informing thousands of Canada's national S&T achievements;

- ◆ approximately 180 000 copies of the booklet *Science and Technology in Canada — Something to Think About!* distributed in schools, shopping malls and supermarkets nation-wide;
- ◆ approximately 27 000 posters for young people, with the themes, *We Need Your Imagination* and *There's a Future in Science and Technology* distributed to schools across Canada;
- ◆ national seminars and media training sessions undertaken to dispel current myths about scientists and engineers and help them communicate more effectively with the public; and
- ◆ commitment of all key sectors to participate in the first National Science and Technology Week, held in October 1990.

### **Science Culture Canada Program**

With an annual budget of \$2.5 million, the Science Culture Canada Program provides funding for a wide range of projects and activities such as science fairs, exhibits, books, videos and lecture series designed to increase public awareness of S&T. Competitions for funding are held twice annually, in April and October.

The program is currently administered by Supply and Services Canada under the direction of a management committee chaired by ISTC. An evaluation committee of representatives from outside government is responsible for judging applications and making recommendations for funding to the management committee. Evaluation committee members are nominated by the provincial and territorial governments.

In 1989-90, there were 195 proposals received with requests for funding of approximately \$11.8 million. Of these, 61 were accepted, with an award total of \$2 703 700.

## **NABST Secretariat**

### **National Advisory Board on Science and Technology**

One of the major initiatives announced in the October 1986 Speech from the Throne, the National Advisory Board on Science and Technology (NABST) is responsible for advising the Prime Minister on domestic and international developments in science, technology and innovation.

The board held its first meeting on February 16, 1987. Since that time, its members — including some of Canada's most eminent scientists, educators, and industry and labour leaders — have studied and reported on specific priority issues in S&T as designated by the Prime Minister.

The Secretariat provides support for the smooth operation of NABST in both its advisory and administrative capacities. It comprises a team of senior advisors who, under the direction of an assistant secretary, oversee the coordination of activities undertaken by the NABST committees, the board and the chairpersons.

In 1989-90, NABST provided advice to the Prime Minister through its working committees in the following areas: the need to challenge the private sector to be more competitive; Big Science; federal S&T expenditures; identification of S&T priorities in Canada; initiatives in human resource development; and methods of financing industrial innovation.

The following two NABST reports were presented to the Prime Minister in May 1989: *The Private Sector Challenge* and *Big Science*.

**T**he Policy Sector is responsible for leading the development of industry and technology policy at ISTC and for contributing to the development of related policies in other departments, in order to improve the national business climate and promote international industrial competitiveness, as well as scientific and technological excellence.

The Policy Sector comprises the Entrepreneurship and Small Business Office and the following branches:

- ◆ Industrial Competitiveness;
- ◆ Technology Policy;
- ◆ Trade Policy; and
- ◆ Policy Services.

Over the course of the year the sector led the development of the strategic direction and priorities at ISTC and strengthened its function as a reasoned advocate for industry. It improved its analytical capabilities in horizontal framework policies (policies which influence the policies of other departments), with primary attention paid to human resource development, innovative management practices, the introduction of technology to the workplace, taxation and financing issues, and environmental and other regulatory issues; conducted analyses of key factors affecting Canadian firms' competitive performance in domestic and international markets; developed strategies to improve scientific and technological capabilities in strategic enabling technologies; and created a comprehensive approach to technology diffusion and innovation strategy.

The sector also consolidated the department's role as a prime contributor in the interdepartmental trade community, focusing on the implementation of the Canada-U.S. Free Trade Agreement (FTA), the Uruguay Round of Multilateral Trade Negotiations (MTN) and Europe 1992; worked to remove interprovincial barriers to trade; promoted federal-provincial cooperation on industry, science and technology matters; provided analytical and secretariat support

for federal-provincial industry, science and technology ministerial forums; and coordinated federal-provincial relations for the department.

## Industrial Competitiveness

The Industrial Competitiveness Branch was established to undertake analyses and assessments of the competitiveness of Canadian industry, to develop departmental positions and advocacy activities aimed at improving the business climate in Canada and to set up a framework, criteria and priorities for sector policies.

During the year under review, the branch:

- ◆ developed the economic agenda presentation for the Economic Policy Committee and subsequently took the lead in producing a memorandum on competitiveness (which was the basis for the National Competitiveness Initiative) and an internal framework for ISTC policy development activities;
- ◆ undertook a microeconomic analysis with the department of Finance in support of the National Competitiveness Initiative;
- ◆ prepared annual assessments of the economic situation of industries and regions as a background for the budget's economic outlook paper;
- ◆ developed the ISTC action plan on human resources, published *The Human Dimension of Competitiveness*, and prepared an ISTC position paper which was instrumental in defining the terms of reference for the Prime Minister's education initiative;
- ◆ led and coordinated the ISTC position on the environment agenda and gave impetus to industry-public consultations;
- ◆ led and coordinated the ISTC position on telecommunications;



- ◆ conducted analyses on issues such as competition policy, regulation of transportation, intellectual property and business financing;
- ◆ completed the methodology for the Competitiveness Analysis Framework and began implementation of three prototype projects, to be completed in 1990-91;
- ◆ completed the Competitiveness Grid Analysis framework, which assesses competitiveness trends by sector;
- ◆ worked with the Canadian Manufacturers' Association on a set of competitiveness indicators, which also supported work by the Council of Science and Technology Ministers;
- ◆ established, with Statistics Canada, a special qualitative survey of investment intentions for use in a review of the effects of the FTA and other key trends;
- ◆ completed a report on ISTC data needs and ISTC-Statistics Canada relations for the Departmental Management Committee;
- ◆ completed comprehensive analyses of Canadian R&D performance in relation to the Organization for Economic Cooperation and Development (OECD) members and the distribution within Canada of federal R&D spending; and published directories of the industrial and federal R&D establishments;
- ◆ reviewed R&D expenditure targets for the minister's use at NABST;
- ◆ produced a statistical compendium, with commentary, on Canada's international trade performance and competitiveness;
- ◆ prepared *S&T Economic Analysis Review*, a fact-book on S&T statistics;
- ◆ coordinated the development of the outlook for industries and provinces with the department of Finance;
- ◆ contributed analysis and advice on the development of criteria and a selection process for sector campaigns, as well as on the development of policy positions in several industry sectors;
- ◆ developed ISTC position papers on a number of corporate tax issues, published

a comparison of Canadian and U.S. corporate tax regimes, and participated in inter-departmental discussions related to the development of tax policy and administration of tax programs;

- ◆ worked on the tax competitiveness analysis of several specific sectors, and prepared, with the automotive directorate, a comparison of Canadian and U.S. tax incentives; and
- ◆ built closer linkages with the Canadian Manufacturers Association, the Canadian Commercial Corporation and the Canadian Exporters Association.

## Technology Policy

The Technology Policy Branch focused its efforts on helping industry develop the technical and management capabilities to meet the twin challenges of rapid technological change and the globalization of markets.

The branch undertook a number of market and technical studies in areas such as agri-business and waste management to support the work of the National Biotechnology Advisory Committee, which convened twice during the year. Made up of experts in fields such as banking, resource industries, patenting, genetics and venture capital, it is developing a national strategy to help Canadian business be commercially successful through the use of biotechnology.

Extensive preparations were undertaken for the inauguration of the new private-sector National Advisory Panel on Advanced Industrial Materials. Like the National Biotechnology Advisory Committee, this panel will report to the Minister for Science and have a mandate to develop investment strategies for Canadian industry to capture the benefits of emerging materials and processing technologies. As part of these preparations, a study was initiated to examine the university research and teaching infrastructure in advanced industrial materials. The National Biotechnology Advisory Committee and the National Advisory Panel on Advanced Industrial Materials are both integral parts of the department's Strategic Technologies Program.

The branch established the infrastructure necessary to implement the new Artificial Intelligence R&D Fund, which is designed to

develop industrial capabilities in knowledge-based applications through the contracting-out of federal government projects. The fund shares, with other departments, the costs for projects which promise high pay-offs for government operations as well as enhanced competitiveness for industry.

The growing importance of S&T collaboration as a basis for strengthening Canada's competitiveness has meant more branch activity in international S&T policy. An example of this increased activity is the lead role the branch played in the OECD Technology Economy Program. A major OECD undertaking, the program will assess the relationship between S&T competitiveness and economic growth and provide advice on policy directions for the 1990s. Branch participation included various symposia hosted by the OECD and individual member governments. Canada will host the wrap-up symposium of senior government officials in February 1991.

A major policy review of Canada's S&T relations with Japan was completed. It resulted in a new Canadian strategy for strengthening the relationship between the two countries, particularly with respect to industry involvement. A Japan S&T fund was established under Canada's Going Global Program which will allow more focused and sustained efforts in collaborative projects with Japan. Four joint workshops were held, bringing together more than 100 researchers from industry, government and universities of both countries.

The branch also plays a key role in the Canadian response to Japanese S&T initiatives in the multilateral arena. Its director general serves as vice-president of the international board of trustees of the S&T Human Frontier Science Program.

The department has commissioned the Science Council of Canada to undertake a comprehensive examination of innovation strategies and performance of 15 Canadian industries. With an emphasis on investments in R&D, this study will identify the international and domestic forces that determine levels of investment in innovative activities, and will suggest appropriate strategies for Canadian industry in view of the behaviour of international competitors. Pilot studies were completed during the year in three industry sectors. The final report is expected in late 1990.

ISTC has established technology diffusion as a key priority — both because of the widespread economic benefits it can bring through industrial innovation and because of the poor Canadian performance in this area. The question is simply this: How quickly and effectively can Canadian industry acquire and implement new technology and the policies required to facilitate the process? The branch has begun a qualitative survey across ten industrial sectors which will provide insights into the key problems companies face in implementing innovative technologies.

## **Entrepreneurship and Small Business Office**

The Entrepreneurship and Small Business Office (ESBO) supports the Minister of State, Small Businesses and Tourism, in his role as the advocate for small business within Cabinet and as the federal government's chief spokesperson on small business issues.

The Office is responsible for the development, implementation, promotion and assessment of national policies and programs affecting the small business community. In this capacity, it conducts or commissions studies and analyses, makes recommendations on policy issues and brings forward policy options on small business concerns for review by the minister or Cabinet.

The ESBO takes the lead in fostering entrepreneurship; promoting awareness of its benefits; nurturing new and existing businesses; and removing obstacles to start-up and growth by working with other federal departments and agencies, provincial governments, businesses, associations and academic and financial institutions.

Recognizing the important role of Canada's entrepreneurs in the economy, the Government of Canada announced a national policy on entrepreneurship in 1988 to promote, nurture and remove obstacles to successful entrepreneurship. Implementation of many initiatives contained in the policy continued throughout the period under review.

The National Entrepreneurship Development Institute was officially launched on June 19, 1989, with headquarters located in Montreal. The institute is a non-profit, private sector organization established for the purpose of promoting and strengthening the entrepreneurship culture and encouraging the creation of new businesses, primarily through entrepreneurship education, research and network building.

The National Forum on Entrepreneurship was held June 20-21, 1989 in Quebec City. (Provincial forums had been held in advance to obtain consensus on the key issues to be discussed and to select delegates representing the business, financial and academic communities across Canada.) In eight different workshops, some 200 delegates discussed a wide range of issues and made recommendations on the role of the public and private sectors in promoting entrepreneurship and developing an entrepreneurial culture in Canada.

The Entrepreneurship Awareness Program offers financial support to projects initiated by non-profit organizations whose major objective is the promotion of the social, economic and cultural benefits of entrepreneurship. This fiscal year, funding has been provided to groups across the country in support of 33 activities including a series of educational videos on entrepreneurship, a women's entrepreneurship conference and the national expansion of a youth entrepreneurship association.

During the year under review a new four-year, \$2.8-million, federal-provincial-territorial agreement was signed to expand and enhance the Small Business Data Base begun in 1986. The publications released in 1989 are:

- ◆ a new set of *Small Business Profiles* on 108 industries (operating information for enterprises and bankers);
- ◆ *Sales per Selling Area of Independent Retailers, 1988*; and
- ◆ *Employment Dynamics In Canada, 1978-87*.

The Small Business Data Base is maintained by Statistics Canada for the federal-provincial-territorial partners to the agreement.

The Office played the lead role in extending the *Small Businesses Loans Act* legislation for three years, to March 31, 1993. For its part in the extension, the ESBO is leading an interdepartmental team from the Atlantic Canada Opportunities Agency (ACOA) and the department of Western Economic Diversification which is reviewing the program to determine how it can serve the needs of small businesses better.

The Office has maintained close contact with the department of Finance and Revenue Canada on policy and operational issues and provided advice and related briefing material to the minister on the proposed Goods and Services Tax (GST).

Implementation of the Access Small Business program continued during the period under review. In addition to introducing measures to enhance procurement procedures, the ESBO and Supply and Services Canada began studies to find new ways of improving access to government contracts. Topics under consideration included contract breakout and technology transfer.

ISTC, Supply and Services Canada and the Aerospace Industries Association of Canada completed a pilot project to identify procurement-related marketing opportunities and are currently evaluating the results. If this project expands beyond the initial stage, small firms will benefit from its valuable procurement data information systems.

The Office published the first report to Parliament on the state of small business in Canada. *Small Business in Canada — Growing to Meet Tomorrow*, focused on the importance of small business to the Canadian economy, particularly in the area of job creation. It provided information on the government policy framework for small firms, and on the various programs and services available to them. Finally, the report identified the challenges facing small firms in the coming decade: technology, globalization of economies and human resources.

On behalf of the ESBO, the Canadian Labour and Market Productivity Centre completed a study to assess the training needs of small business managers. The report's findings, which identified gaps in the range of available training services, will form the basis for policy considerations by ISTC.

Finally, the U.S. Small Business Administration has invited the Government of Canada to jointly sponsor a one-day showcase on new programs and initiatives in small business development. This event was planned for Thursday, June 7, 1990, in Arlington, Virginia, immediately before the opening of the 35th Annual World Conference of the International Council for Small Business.

### **Small Business Week**

The Office is a major participant in Small Business Week (last week of October), which is organized by the Federal Business Development Bank, and other events throughout the year. Activities range from entrepreneurship awards and business trade shows to small business conferences.

In cooperation with the Aerospace Industries Association of Canada, the ESBO has initiated research on a concept to enhance the marketing and technology capabilities among aerospace industry suppliers, and thus solidify the industry's infrastructure. In a similar context, the ESBO and the Defence Industries Branch provided assistance to small specialized aerospace industrial suppliers, to help them participate in the 1989 Paris Air Show as part of developing their marketing capabilities.

The Canadian Chamber of Commerce, with support from ISTC and EAITC, is developing a step-by-step export marketing guide for small businesses in Canada, entitled *Exporting to the United States: A Canadian Business guide*.

The Federal-Provincial-Territorial Counterparts Responsible for Female Entrepreneurship met in September 1989 in Montreal. The group shared information on policies and programs designed specifically for female entrepreneurs, and recommended ways to promote non-gender-specific programs for women.

An interdepartmental committee of senior officials responsible for entrepreneurship promotion was established and met for the first time in January 1990. The meeting provided a venue to exchange information on each department's key initiatives in the area of entrepreneurship and determine how best to coordinate these activities.

## **Trade Policy Branch**

The objective of the Trade Policy Branch is to ensure that Canadian industry and technology interests have appropriate input in Canadian trade policy objectives and strategies.

The branch is the focal point for extensive work throughout the department on the current Uruguay Round of MTN. It undertook export opportunity and import sensitivity analysis, as well as industry sector and program impact assessments for such priority MTN areas as market access negotiations on tariff and non-tariff barriers, subsidy and countervail practices, trade remedy and safeguard issues, and government procurement.

The so-called new issues — trade in services, trade-related intellectual property and trade-related investment issues — have also been the subject of extensive analysis and sectoral testing. Branch involvement has included the preparation of substantive background and analytical papers, interdepartmental discussion of appropriate Canadian positions and strategies, and participation in the Geneva-based MTN negotiating groups.

Activities associated with the implementation of the FTA represented another priority. The bilateral negotiations which led to an agreement to accelerate FTA tariff reductions for some \$6 billion's worth of two-way trade drew heavily upon the extensive industry pact assessment work undertaken and coordinated by the branch.

The branch launched a number of pilot projects in an effort to encourage firms to assess and adapt to new U.S. market opportunities and challenges. The main emphasis was on sector-specific workshops and seminars on the theme of corporate strategic planning.

Other FTA-related work included presentations to industry; business enquiries; addresses to industry interests on such issues as FTA "rules of origin," product marking, certification and professional accreditation procedures; and research to prepare for future negotiations on subsidies as called for in the agreement.

The branch was also actively involved in the development of the federal government's Going Global strategy. Going Global aims at a more targeted and integrated approach for Canadian trade, S&T and investment promotion efforts abroad.

This important initiative engages ISTC interests both in the development of new strategies for Canada's S&T relationships with Japan and Europe, and in the identification of industry sector interests and priorities.

The branch pursued its responsibilities for managing Canada-European Community (EC) industrial cooperation. This activity involved a review and updated the work program undertaken by the Sub-committee on Industrial Cooperation and its four bilateral working groups; two meetings with EC counterparts; and the preparation of a report to ministers on the occasion of the annual Canada-EC ministerial meeting.

Similarly, the branch led Canadian delegations to meetings of the OECD Industry Committee.

Other branch activity included preparations for GATT dispute settlement panels, and analysis of the accession of several countries to GATT as well as many sectoral and issue-specific trade actions. The branch also continued to participate in the ongoing review of export financing policy and to support work on the elimination of interprovincial trade barriers.

## Policy Services

The Policy Services Branch provided a broad range of services in the following areas: federal-provincial relations on industry, science and technology matters; preparation and coordination of departmental briefings for ministers before Cabinet committee meetings; corporate planning, monitoring and consultations with the private sector; and evaluation of departmental programs and services to business.

The Federal-Provincial Relations Directorate assumed increased responsibility for overseeing the department's relationships with other levels of government during the period under review.

A revised operating plan and structure for the group was approved and implemented. The Council of Science and Technology Ministers met and a task force it created prepared a draft S&T action plan for consideration by ministers.

Discussions on interprovincial trade barriers by the Committee of Ministers on Internal Trade advanced over the course of the year. The committee's purpose was to prepare the various governments to proceed with agreements or decide the future course of action in the areas of government goods procurement, wine, beer and spirits.

Coordination of the departmental preparations for the 1989 First Ministers' Conference as well as the conclusion of the Proposed KAON Factory Engineering Design and Impact Study was also undertaken.

The Cabinet Briefing Unit coordinated and prepared briefings for departmental ministers prior to Cabinet committee meetings; provided ongoing liaison with ministers' offices, regional offices and central agencies; coordinated the preparation of the transition briefing books; designed, tested and managed the sector's electronic communications network; and coordinated the preparation of the Sector 1990-91 Strategic Plan.

The Corporate Planning and Monitoring Directorate continued its primary functions of managing the process which determines the strategic direction and priorities of the department; coordinating the development of related operational plans for the department's various responsibility centres; monitoring performance against plans; and reporting to Parliament on departmental achievements and plans, through preparation of Part III of the Main Estimates. In addition, the directorate was involved in preliminary work to develop a strategic approach and data bank to support the sector's consultation activities with selected national associations and research groups.

The Evaluation Directorate provided senior management with information and advice on the continuing relevance, results, performance and cost-effectiveness of national programs and services to business. During the year under review, the following evaluations were completed:

- ◆ Import Intelligence Service;
- ◆ Microelectronics and Systems Development Program (MSDP);
- ◆ Industrial and Regional Development Policy (IRDP), formally the Industrial and Regional Development Program;
- ◆ Technology Outreach Program (TOP); and
- ◆ Business Opportunities Sourcing System (BOSS).

**T**he objective of the Industry and Technology Sector is to support and promote the development of internationally competitive Canadian industry through the following means:

- ◆ maintaining a high order of knowledge of all industry sectors. This knowledge is to be used to guide government officials and ministers on industry sector characteristics, policies and requirements for services and programs;
- ◆ acting as an advocate for industry issues within government, and explaining government policies and directions to industry;
- ◆ promoting the development, acquisition, diffusion and application of new technology; and
- ◆ developing and delivering targeted policies, business services and programs dedicated to improving international competitiveness and scientific and technological excellence. The sector's activities related to trade, marketing, technology, government procurement, industrial benefits arising from major Crown projects, strategic industrial technologies, sector campaigns, major special projects and financial assistance program management.

Principal clients of Industry and Technology include the business sector (manufacturing, processing and services), institutions (universities and associations), government (federal, provincial, and territorial), and Parliament.

## Aerospace, Defence and Industrial Benefits

The Aerospace, Defence and Industrial Benefits Branch manages the Defence Industry Productivity Program (DIPP) to develop strong, competitive and technologically capable defence-related industries; pursues the federal government's industrial and regional benefit policy through federal procurement; and is responsible for civil-emergency planning for industrial preparedness.

Staff gather and disseminate industrial intelligence on the sectors for which the branch is responsible. Spending on DIPP during the 1989-90 fiscal year totalled \$300 million, up from \$248.5 million the previous year. Highlights during 1989-90 include the following:

- ◆ R&D expenditures accounted for \$183.9 million or just over 61.1 percent of total DIPP spending. Some 27.8 percent was devoted to source establishment projects, 10.5 percent to capital assistance, and 0.6 percent to market feasibility studies;
- ◆ new applications for assistance totalled 172;
- ◆ new contracts through the program as a whole, involving DIPP assistance of \$293 million, totalled 111; and
- ◆ approving of the 1989 Canadian Annual Procurement Strategy, with responsibility assigned to ISTC.

The branch handled departmental responsibility for a number of Memoranda of Understanding with key Canadian companies in the aerospace and defence fields to establish frameworks for cooperation between the companies and the federal government. The Memoranda of Understanding define long-term objectives, performance targets and procedures for consultation and monitoring.

In cooperation with other government departments, the branch supports Canada's participation in NATO joint development and production projects and maintains a presence in North American defence industrial base preparedness planning. Canada's civil-emergency planning commitments to NATO and the United States also were met through the branch.

Strategies to optimize industrial and regional benefits were advanced for a number of major Crown projects such as the Canadian Forces Supply System Upgrade project.

## External Consultations Directorate

The External Consultations Directorate was established in 1989-90 to undertake a special corporate initiative aimed at improving the department's performance in client consultations and the collection of business intelligence. The directorate is to mount a two-year knowledge-building effort focusing on the development, use and sharing of information, and on the conducting of systematic, ongoing and professional consultations with clients.

Specific achievements of the External Consultations Directorate during its first year of operations included the following:

- ◆ promoting within ISTC the mechanisms for improving its consultation practices by providing a training courses in interviewing and presentational skills, a Consultation Guide, a corporate (training) video, a feasibility study of a corporate system for tracking consultations with external clients and a review of the consultation practices of other federal government departments;
- ◆ developing a selected number of key corporate directories (e.g. *ISTC Data Bases and Programs and Services*);
- ◆ assessing the feasibility of automating departmental directories and company information; and
- ◆ publishing improved telephone directories to enhance access to, and the image of, ISTC to its government and private-sector clients.

## Information Technologies Industry

The Information Technologies Industry Branch is dedicated to supporting the development of the Canadian information technologies industry, and ensuring its competitiveness in the global marketplace in the 1990s and beyond. The branch also works to encourage the effective application of information technologies in Canadian industry.

In pursuing these goals, the branch:

- ◆ created, in conjunction with industry, the Canadian Telecommunications Action Committee, to develop new initiatives for the Canadian telecommunications equipment industry and to promote effective industry-government consultation and cooperation;
- ◆ created, in conjunction with industry, the Canadian Microelectronics Action Committee, to develop an industry driven strategic plan, including actions to strengthen the international competitiveness of the Canadian microelectronics industry;
- ◆ supported the national software conference, Software '90, in collaboration with Supply and Services Canada, Communications Canada and EAITC;
- ◆ helped establish the HealthCare Information Technology Association of Canada, which represents the interests of Canadian firms developing healthcare software and systems;
- ◆ initiated a major software distribution study by Statistics Canada;
- ◆ conducted the second in a series of financial forums on debt and venture capital financing for the software industry;
- ◆ initiated a series of R&D tax seminars by industry associations in cooperation with Revenue Canada;
- ◆ supported a major R&D project under the Technology Opportunities in Europe Program as part of a Eureka initiative;
- ◆ developed a focused strategy for the Technology Management Directorate, targeting specific sectors and small and medium-sized manufacturing enterprises (SMEs) for technology initiatives;



- ◆ completed a pilot Manufacturing Visits Program, under which a firm contemplating installing a technology visits another firm which demonstrates and discusses its experience with a similar technology;
- ◆ initiated a pilot Manufacturing Assessment Protocol jointly with Fleming College as a new diagnostic tool to help assess the effectiveness of manufacturing operations;
- ◆ conducted three industry workshops in the mining, red meat and mineral processing sectors to bring potential users and suppliers of information technology together to stimulate technology diffusion;
- ◆ approved 90 applications under the Advanced Manufacturing Technologies Application Program;
- ◆ launched the Advanced Manufacturing Technology sector campaign jointly with the Surface Transportation and Machinery Branch;
- ◆ agreed to provide assistance under the Strategic Technologies Program to PRECARN Associates Inc., a consortium of 35 companies, for the purpose of conducting pre-competitive R&D;
- ◆ completed a survey of Technologies in Services and printed and distributed the findings;
- ◆ organized, with the Canadian Chamber of Commerce, three half-day mini-workshops, on technology applications in SMEs;
- ◆ continued with the development of new projects under the Microelectronics and Systems Development Program and the Strategic Technologies Program; and
- ◆ completed a feasibility study on the implementation of a national high-speed, wide-band communications network.

## Planning, Coordination and Control

The Planning, Coordination and Control Branch is responsible for providing central planning, administrative and managerial services to the Industry and Technology Sector and for the development of sector-wide policy positions in response to initiatives originating elsewhere.

The branch's major initiatives during the year included the following:

- ◆ managing the sector profile production process and conducting a survey to determine client response to the profiles;
- ◆ managing the sector campaign selection process, which led to the approval of seven campaigns;
- ◆ providing a technology transfer information service to the business community, including *Innovation* magazine and the *Technology Networking Guide*; and
- ◆ managing the Technology Outreach Program which supports technology centres that seek to accelerate the acquisition, development and application of technology and skills in the small and medium-sized business sectors. Seven new or continuing technology centres were supported under the program, bringing the total to 24. These assist numerous industry sectors, and several thousand small and medium-sized businesses.

## Resource Processing Industries

The Resource Processing Industries Branch is made up of five directorates: Advanced Industrial Materials; Biotechnology and Health Care Products; Chemicals and Investments; Forest Products; and Metals and Minerals.

During the past fiscal year the branch:

- ◆ established two national advanced industrial materials networks in advanced ceramics and composite structures and materials;
- ◆ formed a number of strategic alliances to undertake advanced industrial materials R&D;
- ◆ completed negotiations to establish a \$140-million R&D effort in advanced industrial materials technology;
- ◆ launched a medical devices sector initiative;
- ◆ published a survey of Canadian biotechnology in partnership with the private sector;
- ◆ played a key role in launching the Technology Institute of Medical Devices and the Canadian Institute of Biotechnology;

- ◆ approved 10 biotechnology projects under the Strategic Technologies Program and generated an additional 50 active cases;
- ◆ undertook a strategic analysis of the plastics packaging industry;
- ◆ completed an advanced polymer composites mission to Japan;
- ◆ obtained agreement from participant countries in the International Rubber Study Group to host the 1990 meeting in Canada to coincide with Canada's accession to its chairmanship for the next two-year period;
- ◆ initiated a Memorandum of Understanding with Allright & Wilson Americas to develop world-product mandates for Canada in selected specialty chemicals and advanced materials sectors;
- ◆ managed the Cooperative Overseas Market Development Project for Western Canada in cooperation with the Province of British Columbia and the B.C. Council of Forest Industries, and completed negotiations to establish a similar program for eastern Canadian commodity wood products;
- ◆ launched the new Forest Industries R&D and Innovation Program to promote technology development and application projects designed to improve the international competitiveness of the forest products industry and related machinery industries;
- ◆ implemented the Timber-frame Demonstration Housing Program to encourage industry associations and alliances of companies to undertake market development activities for Canadian wood products and building materials in high-priority export markets;
- ◆ introduced the Cooperative Industrial and Market Development Program to encourage the development of the secondary wood products industry, through a joint funding agreement with the Province of British Columbia and the B.C. Council of Forest Industries;
- ◆ monitored trade data and participated in ongoing negotiations with the United States to avoid the application to Canada of U.S. import restraints on steel;
- ◆ provided ongoing support for the Acid Rain Abatement Program;
- ◆ monitored and provided sectoral and technical support to the SYSCO modernization program;
- ◆ organized and presented numerous seminars and conferences on sector-specific topics; and
- ◆ provided detailed analyses of import sensitivities and export prospects for individual tariff lines as part of the departmental contribution to the Uruguay Round of the GATT negotiations.

## Service Industries and Consumer Goods

The Service Industries and Consumer Goods Branch consists of four directorates: Textiles, Clothing and Footwear; Commercial Service Industries; Food Products; and Consumer Products. This diverse and expansive range of industries constitutes more than 50 percent of Canada's industrial economy.

The efforts of the branch have focused on promoting international competitiveness and scientific and technological expertise in its respective sectors through:

- ◆ assisting in the development and funding of a textile centre of excellence for specialized management and advanced technical training, applied research, and information exchange and dissemination in the field of textiles and textile-related technologies;
- ◆ funding a study of apparel retailing in the United States to help Canadian apparel firms develop marketing strategies to maximize benefits from the FTA;
- ◆ developing, in consultation with industry, sector campaigns in the fashion apparel and fishery product sectors to examine issues affecting the long-term competitiveness of these sectors, identify possible solutions to problems and assist industry in achieving higher levels of competitiveness;
- ◆ carrying out extensive analyses of changes in demand patterns, supply structures and the international environment affecting Canadian textile and clothing industries in order to formulate more focused government policies for these industries;

- ◆ creating a Food Policy Task Force, as recommended by the Advisory Council on Adjustment, to examine the problems of the food processing industries in Canada, investigate possible solutions and provide informed recommendations to the Agri-Food Policy Review;
- ◆ undertaking, in response to industry needs, the initial development of an integrated, multi-industry task force for the development of logistics expertise on which to build Canadian industrial competitiveness;
- ◆ coordinating a major interdepartmental review of policies and programs which affect and support the development of internationally competitive service industries in Canada;
- ◆ publishing a competitiveness profile on the management consulting industry in Canada; as well as a series of information booklets on retailing, wholesaling, international and domestic franchising, federal and provincial programs for service industries, and the use of technology in service industries;
- ◆ developing, for the furniture industry, a marketing course to help firms prepare focused marketing strategies; and
- ◆ working with the furniture industry in Canada to develop the terms of reference to establish a national Furniture Technology Centre.

## Special Projects

In 1989-90, the Special Projects Branch, which undertakes sensitive and strategic projects, completed financial and economic analyses of several major industrial initiatives including the following: MIL, Cavendish Farms, the Bell Helicopter Model 230 DIPP Project, the Dowty Aerospace large landing-gear facility, the Pratt & Whitney Canada PW130 project, and the Westray coal mine project.

The analysis of industrial subsidies in Canada and the United States was expanded from the forest products and non-ferrous metals industries to include the food processing (dairy) industry.

## Surface Transportation and Machinery

The Surface Transportation and Machinery Branch is made up of the following four directorates: Automotive; Marine, Urban, and Rail; Construction and Capital Projects; and Machinery and Electrical Equipment. The activities of each directorate are tailored to the characteristics of its economic sector.

In major initiatives during the year, the branch:

- ◆ held extensive consultations with the automotive industry to enhance industrial development, improve international competitiveness and set up the Automotive Advisory Committee to improve communication and cooperation between government, industry and labour;
- ◆ helped EAITC establish the FTA Automotive Select Panel, which is made up of representatives from both Canada and the United States;
- ◆ continued to expand the Automotive Components Initiative launched in 1988 to help small and medium-sized Canadian auto parts manufacturers improve their international competitiveness;
- ◆ organized the workshop Forum on R&D and Technology for senior automotive executives;
- ◆ continued the implementation of the shipbuilding sector strategy to rationalize and increase the competitiveness of Canadian shipyards by: concluding the implementation of the modernization agreement with Marine Industries Limited in Quebec, facilitating the stabilization of the financial situation of that company pending the identification of a permanent solution, concluding the implementation of the restructuring plan for Ontario shipyards, and facilitating a change of ownership for Versatile Pacific Shipyards Inc. in British Columbia;
- ◆ concluded negotiations which resulted in a Memorandum of Understanding with other federal departments, the Province of Newfoundland and Labrador, and the Canada-Newfoundland Offshore

- Petroleum Board, relating to Canadian benefits in the Hibernia project and future offshore developments;
- ◆ continued to work closely with the Canadian Marine Industry Association (CMIA) within the context of the CMIA-ISTC Working Group on Policy to deal with the difficult issues facing the industry;
  - ◆ continued the implementation of the Advanced Train Control System Program with the Canadian electronics, telecommunications and railway industries, including a major pilot project in Western Canada;
  - ◆ concluded a Memorandum of Understanding with the Canadian Urban Transit Association and began developing a strategic plan for the urban transit sector;
  - ◆ initiated a work program under a Memorandum of Understanding signed with the Association of Consulting Engineers in Canada;
  - ◆ provided advice on industrial benefits to the Federal-Provincial Intergovernmental Industrial Benefits Committee for the Lloydminster Heavy-oil Upgrader Project;
  - ◆ established a joint work program with EAITC to facilitate export of capital projects;
  - ◆ strengthened the role of the Minister's Construction Industry Development Council by revising the committee structure, appointing new members to fill vacancies in key industry sectors, and developing a planning framework to guide council activities;
  - ◆ initiated, in cooperation with the Geomatics Industry Association, industry led consultations to review industry procurement, market prospects and key issues;
  - ◆ assisted in the formation of the Canadian Association of Mining Equipment and Services for Export;
  - ◆ launched the Advanced Manufacturing Technologies (AMT) sector initiative aimed at identifying opportunities for growth, and determining the capabilities of Canadian manufacturers to produce and use AMT to become more competitive;
  - ◆ launched the Environmental Industries Sector Initiative to assist environmental industries identify and capture opportunities related to growing domestic and international markets for environmental products and services;
  - ◆ played a leading role in the development of Globe '90, and in organizing a federal-private-sector presence;
  - ◆ continued to maintain liaison and communication with industry and Canadian and U.S. government departments on the implementation of the FTA;
  - ◆ continued to support the acceleration of tariff reductions under GATT; and
  - ◆ participated, in cooperation with EAITC, in 47 trade development fairs and 24 missions.

**A**fter the success of 1988, when an all-time record high for international visitor receipts was established, 1989 was expected to be a year of market consolidation. However, visitors from the United States spent \$4.3 billion in Canada in 1989, while overseas visitors spent an additional \$2.6 billion. These figures represented a 2.8 percent increase in international receipts over 1988. Moreover, overnight visits by overseas visitors were up 7.6 percent from the year before. Only overnight visits by U.S. visitors were down, by 4.4 percent from 1988.

## Market Development

The Market Development Branch works with foreign and Canadian travel industry partners to increase international tourism revenue for Canada. Through a defined marketing strategy, the branch coordinated and delivered comprehensive and integrated advertising, public relations and travel industry development campaigns in Canada's primary international markets — the United States, the United Kingdom, Japan, the Federal Republic of Germany and France.

More specifically, for the year under review, the branch:

- ◆ mounted 46 individual advertising campaigns in the United States, Europe and Asia, including 24 cooperative campaigns with public and private sector partners. These campaigns attracted over \$4.1 million in partner contributions;
- ◆ launched a new series of four television commercials for the U.S. market to continue the successful World Next Door theme developed for previous campaigns;
- ◆ continued the joint television campaign in the United Kingdom with Air Canada, using the award-winning *Canada. A World of Possibilities* commercial;
- ◆ organized the Pacific Asia Travel Association (PATA) Travel Mart and Annual Conference, attended by more than 2 000 tourism industry leaders from the Pacific-Asia region, and held in Canada for the first time;
- ◆ conducted, in cooperation with partners, various educational and attendance-building activities to promote the National Tour Association's annual marketplace, to be held in Montreal in November 1990; and the American Bus Association's annual convention and marketplace in Niagara Falls in December 1990;
- ◆ coordinated a bid presentation during the 1989 United States Tour Operators Association's annual marketplace to host its first-ever Canadian venue in Whistler, British Columbia in 1992;
- ◆ delivered public relations and promotions activities such as international marketplaces and cooperation agreements which, excluding activities delivered by EAITC, levered \$3.8 million;
- ◆ continued to provide a catalyst, through the Tourism Marketing Council, for the development of strategic planning and joint industry-public-sector marketing activities;
- ◆ introduced and promoted — through cooperative working relationships with Air Canada, the governments of Ontario and Quebec, and the Canadian Recreational Canoeing Association — a range of new tour products to meet consumer vacation demand in Canada's five primary international markets. Allocated program resources to EAITC posts to deliver specific components of the plan, leveraging approximately \$2.8 million from private and public sector partners;
- ◆ discontinued the consumer travel counselling unit, in recognition of the major role now being played by the private sector and other levels of the public sector in this area; and
- ◆ closed the tourism program literature distribution centre, in line with the

government's policy of privatization of appropriate services and termination of activities which can best be delivered by the private sector.

## Product Development

The Product Development Branch focused on expanding its inventory of services to business. A series of product analyses, issue papers, trade development initiatives and information products formed the core of a targeted approach to industry development. A year of planning, together with industry and provincial consultations, culminated in a draft of a federal tourism policy for Cabinet review which described the challenges facing the industry over the next decade and set the government's tourism priorities. The principal goals of the policy are to position tourism as a strategic industry on the government's agenda and to achieve a more integrated and coordinated federal approach to tourism.

For the year under review, the Product Development Branch also:

- ◆ completed a discussion paper on a national tourism strategy;
- ◆ instituted the consultation process on the tourism strategy by scheduling meetings for the minister with the provincial and territorial ministers as well as industry leaders;
- ◆ completed the final draft of the Memorandum to Cabinet and the public document on the tourism policy;
- ◆ planned, developed and implemented the tourism stream of the Globe '90 Conference;
- ◆ organized the first meeting of the Canada-U.S.A. working group established under the FTA;
- ◆ established the Employment and Immigration Canada-ISTC working group and organized industry participation and input to the tourism labour force development strategy process;
- ◆ played a key role in coordinating the development of job standards and certification programs within the tourism industry;

- ◆ facilitated the development of a grading system at both regional (Atlantic) and national levels;
- ◆ completed the first phase (feasibility and financing) of the expansion of BOSS to include tourism;
- ◆ developed program proposals for tourism development to be sourced in Atlantic Canada under the Atlantic Canada Opportunities Agency Cooperation Program, in Northern Ontario under FedNor, in the West under the department of Western Economic Diversification and in Yukon and the Northwest Territories under Indian and Northern Affairs Canada short-term and long-term Regional Economic Development funds;
- ◆ developed and implemented advocacy activities to influence the design and application of the proposed GST to the tourism industry;
- ◆ established ISTC positions on several policy issues which affect tourism, including coastal trade definition, impact of foreign investment in national parks, application of the conceptual framework for the GATT and trade-in-services negotiations, ongoing air bilateral negotiations, and border crossings;
- ◆ finalized product analyses on adventure travel for Eastern Canada and an attractions profile;
- ◆ ensured an active presence in international forums such as the World Tourism Organization General Assembly and the OECD tourism committee meetings, and concluded a bilateral cooperation agreement with Mexico; and
- ◆ developed and tested a new business service on technology diffusion.

## Research

The Research Branch focused on expanding the analysis and dissemination of its tourism research material and commercial intelligence products to the industry, with emphasis on business information products tailored to the specific needs of tourism constituents. At the same time, it took measures to improve its working relationships with them and to persuade them to increase contributions to specific projects.

Over the course of the year, the branch:

- ◆ implemented major improvements in the design of the International Travel Survey;
- ◆ undertook pleasure travel market studies in the United Kingdom, France, the Federal Republic of Germany and Japan under a joint research agreement between ISTC Tourism and the U.S. Travel and Tourism Administration;
- ◆ completed and disseminated research reports on specific issues of interest to the industry such as: the impact of a frontier-free Europe in 1992, the applications of technology in the tourism industry, and reports on recent travel industry trends in Ontario and Quebec;
- ◆ undertook analyses of key competitors in the United Kingdom and France;
- ◆ undertook advertising tracking studies in the United States to evaluate the effectiveness of tourism advertising campaigns;
- ◆ issued the monthly *Tourism Intelligence Bulletin* to alert the Canadian industry to trends, opportunities and competitive developments;
- ◆ responded to almost 3 000 requests for research information through the Tourism Reference and Documentation Centre;
- ◆ participated in the establishment of international tourism resource centres for the World Tourism Organization and the Pacific-Asia Travel Association; and
- ◆ provided technical advice to hundreds of industry constituents on research-related matters.

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# Operations

**T**he Operations Sector is responsible for the following:

- ◆ developing and providing functional direction for business service products, and for promoting and delivering specialized national business services;
- ◆ providing functional guidance for the department's international activities in trade, investment and technology;
- ◆ providing support to the deputy minister and functional direction to the executive directors for the general management of the regional offices;
- ◆ designing and implementing program procedures, standards and systems for the department's financial incentive programs, and ensuring their integrity; and
- ◆ administering the ISTC loan insurance and recovery program and advising on Crown corporations.

## Services to Business

The Services to Business Branch is the departmental focal point for services to industry.

The value placed on developing new services is illustrated by the establishment of the Business Service Development Directorate in early 1989. The directorate's mandate is to facilitate the development of new business information, marketing and technology-oriented services. Services currently offered by the branch include BOSS, Market Intelligence Services, the Interfirm Comparison Program and the Canada Awards for Business Excellence.

Specific achievements during the 1989-90 fiscal year include:

- ◆ funding of 36 pilot service initiatives totalling \$2.2 million, including production of a video on the Tax Credits for Scientific R&D Programs; preparation of a guide to technology transfer agreements and

technology needs in business service pilot projects; establishment of Business Service Centres in all ISTC regional offices and in Headquarters to provide a gateway to ISTC services; development of information products and expertise; creation of the Advisory Committee on Services, which acts as a forum for stimulating and funding ideas for new services (budget: \$17 million over four years) and is supported by a secretariat in the Business Services Development Directorate;

- ◆ expansion of the BOSS user community to more than 8 300 subscribers and responses to 3 600 requests; addition of private sector R&D establishments to the data base and preparation for the future addition of environmental consultants and tourism sector information; completion of a program evaluation with recommendations to re-examine the BOSS mandate on the basis of internal and external client needs;
- ◆ presentation of 34 Canada Awards for Business Excellence (including 11 gold, 11 silver and 12 bronze awards) in the categories of quality, productivity, marketing, entrepreneurship, labour-management cooperation, innovation, invention, industrial design and small business, at a ceremony held in Ottawa on November 7, 1989;
- ◆ dissemination of strategic market intelligence covering a wide variety of products to more than 3 200 Canadian businesses; preparation of 90 product-specific market intelligence reports; evaluation of the market intelligence service; an upgrade of the computer system to automate labour-intensive operations to improve productivity and service to clientele; and
- ◆ Interfirm Comparisons in ten highly diversified sectors of industry including shipyards, electrical contracting, wholesale bakeries, manufacturing of printed circuit boards, mining equipment, and paper



boxes; individualized productivity and profitability performance reports, prepared and presented to a total of 240 participating companies across Canada; and, with the support of the European Association of National Productivity Centres, an international comparison between Austrian and Canadian manufacturers of sportswear was begun.

## **International Affairs**

In supporting the department's mission to enhance international competitiveness and scientific excellence, the International Affairs Branch develops priorities and strategies to target international trade, investment, technology and basic and applied research opportunities. It also develops methodologies and networks which provide international intelligence to assist Canadian companies and institutions in their corporate planning and negotiation of business arrangements with foreign companies and governments.

Through the International Planning System, the branch identifies ISTC sectoral priorities by targeted country and presents senior management with an overview of the department's international activities.

In addition, the branch develops and implements action plans for a selected number of priority countries targeted by senior management including the United States, Japan, the Federal Republic of Germany, France, Italy, the United Kingdom, the Republic of Korea and Thailand.

Country "action plans" can include industrial cooperation agreements with foreign governments and businesses, S&T agreements with foreign missions and personnel exchanges.

Through the International Affairs Branch, the department has actively participated in the delivery of the Technology Inflow Program and the Investment Development Program. The branch also has developed investment and technology prospecting techniques and organized both incoming and outgoing missions.

Promotional support publications on investment and technology opportunities continued to be produced.

International industry-sector advice to other government departments totalled 1 220 cases.

The conversion to the Harmonized System of tariff classification has continued to attract a large number of appeals. Order-in-Council authority to provide relief for the concerns of Canadian industry will be terminated June 30, 1990.

## **Planning, Coordination and Regional Affairs**

This branch manages business planning for the Operations Sector and for regional offices; provides policy advice to the ADM; advises on management information systems; supports the ADM, Operations, and the deputy minister in the general management of the regional offices; and provides support to them in areas of liaison and intelligence sharing. In addition, the branch provides administrative, human resource management and financial services to the Operations Sector.

Over the past year, specific achievements have included support in the reorganization of regional offices and the classification of senior staff; assistance in strengthening working relationships between the regional offices and EAITC in the management of the International Trade Centres; continuing development of internal networks between Headquarters sectors and the regions; improvement of internal communications and regional office management processes; and the completion of a consulting study on corporate image and standards for the presentation and design of regional offices.

In addition, the branch has supported the reorganization of the Operations Sector, as well as corporate development, through the creation and implementation of specific strategies. It designed and implemented better planning, monitoring and resource utilization systems for the ADM, Operations, and the regional offices, with emphasis on strategies for functional development.

## **Program Affairs**

The Program Affairs Branch is responsible for the general direction, coordination and integration of all the funded program activities of the department. The branch serves as a corporate focal point in all program planning, design, policy and legislation, as well as program information. It provides administrative

procedures, management information systems, program integrity and a secretariat service to the senior decision boards of the department.

The Industrial and Regional Development Program expired on June 30, 1988. Although it has remained one of the principal programs in terms of disbursements during the year under review, the department's efforts have concentrated on the development and implementation of new programs to develop and apply new technologies, as stated in the ISTC mandate.

Efforts to establish new programs to improve the competitive position of Canadian industry, mainly through technology enhancement, cooperative R&D projects and support for strategic alliances, have continued throughout 1989-90.

The Program Affairs Branch provided logistics for, and assisted in launching, the following sector campaigns: Forest Products Industry Program, Fishery Products Sector Campaign, Automotive Components, Ocean Industries, Environmental Industries, Advanced Manufacturing Technology, Medical Devices, and B.C. Manufactured Wood Products.

Annex E summarizes the subsidiary agreements under the Economic and Regional Development Agreements and General Development Agreements active during the 1989-90 fiscal year.

## Crown Investments and Guarantees

The Crown Investments and Guarantees Branch is responsible for the following three distinct activities:

- ◆ providing advice to ministers on the business strategies, operations and performance of Crown corporations for which ministers are responsible (Crown Investments);
- ◆ managing the DHC-8 aircraft credit insurance program, and a portfolio of insured loan accounts and contribution agreements (Credit Insurance and Recoveries); and
- ◆ administering the *Small Businesses Loans Act* (SBLA) and managing the Small Business Loans Administration.

During fiscal year 1989-90 the branch continued to assist the minister in reaffirming and strengthening the commercial mandate of the Cape Breton Development Corporation (DEVCO). A comprehensive study led to a decision by ministers to proceed with capital expenditures of \$17 million over the next two years to upgrade operations at the Lingan colliery with a view to ensuring the long-term viability of the Cape Breton coal industry in the context of Nova Scotia's emerging environmental and energy policy framework.

In line with the decision (announced in the April 29, 1989 budget speech) to reduce Federal Business Development Bank Management Services expenditures by \$13 million, the branch worked on terminating marginal or redundant services.

The branch also initiated research on legislative proposals of a technical nature with respect to the *Federal Business Development Bank Act*, dealing primarily with statutory limitations of total capital and liabilities.

A comprehensive review of the activities of Canadian Patents and Development Limited, including a review of options for the corporation's future, was completed by the branch during the 1989-90 fiscal year. Ultimately, the government took a decision, announced by the Minister of Finance in his February 20, 1990 budget speech, to wind-up Canadian Patents and Development Limited and transfer its functions to other departments and agencies. The enabling legislation is expected to be tabled during the 1990-91 fiscal year.

The Credit Insurance and Recoveries Unit continued the underwriting and delivery of credit insurance to a number of regional airlines financing the purchase of DHC-8 aircraft from the de Havilland Division of Boeing of Canada Ltd. In fiscal 1989-90, five projects totalling \$96.6-million-worth of insurance were investigated and approved by the minister, while one project for \$28.4 million was cancelled. At the end of the fiscal year there was C\$327.5 million and US\$88 million of insurance outstanding on financing for 80 aircraft to nine Canadian and five U.S. commuter air carriers.

At the close of the fiscal year, the unit also was managing a non-aircraft portfolio of 36 insured loan accounts with more than \$135-million-worth of insurance outstanding.

In addition, there are approximately 250 accounts in excess of \$80 million under administration involving contribution agreements.

In this regard, more than \$10 million in repayable contributions was recovered.

The unit also administers accounts in default under insured loan programs and a wide range of contribution programs of ISTC and its predecessor departments.

In fiscal 1989-90, there were 8 273 Business Improvement Loans totalling \$356.3 million issued under the SBLA through some 8 500 commercial lending offices (i.e. chartered banks;

credit unions, caisses populaires and cooperative credit societies; trust, loan and insurance corporations; and Alberta Treasury Branches) to help finance specified fixed-asset needs of new and existing small business enterprises in all provinces and territories in Canada.

Businesses with little or no track record (i.e. start-ups and firms in business three years or less) account for approximately 60 percent of borrowers under the SBLA.

In March, 1990, legislation was passed to extend the SBLA for three more years to March 3, 1993. Parliament authorized a loan ceiling of \$2 billion for the three-year period. Cabinet has requested a comprehensive review of the SBLA. The review commenced in fiscal 1989-90, with a report due by December 31, 1990.

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# Regional Development: Quebec

**T**he 1989-90 fiscal year was marked by the establishment of a new regional development organizational structure at the Quebec Regional Office designed to separate regional development activities from industrial development initiatives. The headquarters of the Quebec regional development organization is located in Montreal and is under the direction of the Associate Deputy Minister, to whom two organizational sub-groups report.

## Operations

This responsibility centre, headed by an assistant deputy minister, is responsible for determining the terms and conditions of programs and negotiating a number of specific programs with the province. It reviews applications for contributions from clients and administers the programs. It also facilitates client access to departmental programs and services for business. In addition to the Montreal office, there are offices in eight cities and regions in Quebec (four in the resource regions and four in the central regions).

## Policy and Liaison

This responsibility centre performs economic analyses and develops program frameworks and policies, which it then evaluates. It monitors developments in the Quebec economy, develops strategies for negotiations with the province and coordinates such negotiations. It provides administrative services to the Management Committee of the new Canada-Quebec Subsidiary Agreement on the Economic Development of the Regions of Quebec and coordinates activities under this agreement. Finally, it defends Quebec interests during the development of federal regional development policies by sectoral departments, central agencies and regional development agencies, and provides liaison with federal departments through its liaison office in Ottawa.

## Canada-Quebec Agreements

In March 1990, the two levels of government agreed to extend eight sectoral agreements by approximately one year in most cases and to provide the following additional amounts for seven of them — industrial development: \$82.5 million; cultural infrastructures: \$33.5 million; mineral development: \$12 million; forestry development: \$10.1 million; agri-food development: \$4.7 million; scientific and technological development: \$3.6 million; and communications enterprise development: \$3.6 million.

Under the Subsidiary Agreement for the Economic Development of the Regions of Quebec, three federal programs were introduced for the resource regions: the tourism component of the ISTC Enterprise Development Program, the Agriculture Canada Program for Agri-Food Testing and Experimentation, and the Fisheries and Oceans Canada Program for Fisheries and Aquaculture Testing and Experimentation.

The first program shares a \$100 million envelope with the industrial component announced in 1988, while the other two programs have budgets of \$15 million and \$10 million, respectively.

In addition, in September 1989, the department signed a Memorandum of Understanding with the Quebec government and the Municipality of Sept-Îles to fund the basic infrastructures relating to construction of the Aluminerie Alouette Inc. aluminum plant. The federal contribution to this project is \$5.1 million, with the Quebec government providing a matching contribution.

The department also provided \$20 million to the Aluminerie Alouette Inc. consortium to cover some of its site preparation costs.

## Central Regions Activities

Under the Subsidiary Agreement on the Economic Development of the Regions of Quebec, negotiations continued with the province on various programs and led to the establishment of the Support for Innovation Program and the designation of 15 disadvantaged regional county municipalities to receive special assistance.

During the year, the department signed an agreement with the Centre d'initiative technologique de Montréal for the creation of the Montreal technology park. This measure should encourage the creation of new companies in the high technology sector and the expansion of existing companies.

After consultations with the community, including the City of Montreal, the department began work on formulating an intervention strategy for southwest Montreal, in conjunction with other federal departments and agencies, notably the Canada Mortgage and Housing Corporation.

Finally, some changes were implemented following a review of regional exceptions to the Canadian Forest Industry Policy which will help companies in this sector withstand international competition.

## Resource Regions Activities

In May 1989, the department announced the introduction of the tourism component of the Enterprise Development Program, which virtually doubled the number of applications for financial assistance received from the resource regions in 1989-90.

The department also began development of an innovation assistance program and began negotiations with the Quebec government to prepare four new joint or complementary programs.

In order to improve customer service, the department recruited four new development officers, one for each sub-regional office.

The department also cooperated closely in the work of the regional consultative committees, which met a number of times in 1989-90 to provide input on the various federal and provincial programs under the agreement.

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# Regional Development: Ontario

**T**he Regional Development Ontario organization, which reports through the Assistant Deputy Minister, Operations Sector, consists of two responsibility centres. The first is a policy and liaison group for all of Ontario, designated as the Regional Development Ontario Secretariat and located in Ottawa. The second, with responsibilities focused on Northern Ontario, is designated as the FedNor Secretariat and is located in Sault Ste. Marie.

During the year under review, regional development efforts in Ontario were focused on the region of greatest need, the north, and were carried out under the FedNor initiative.

## FedNor

The Federal Economic Development Initiative for Northern Ontario (FedNor) was announced in July 1987 as part of the federal government's new directions for regional development. With a five-year mandate and an original budget of \$55 million, the objective of FedNor is to encourage the growth and diversification of the Northern Ontario economy by providing financial assistance and other support to small and medium-sized private sector businesses. FedNor programs were designed after extensive consultations with Northern Ontario residents and are administered out of its three offices in Sault Ste. Marie, Sudbury and Thunder Bay.

The first three FedNor financial assistance programs were introduced during the 1988-89 fiscal year. They are the Rural Small Business Assistance Program, the Core Industrial Program and the FedNor Loan Insurance Program.

The Rural Small Business Assistance Program provides contributions to a wide array of new or expanding businesses in the rural areas of Northern Ontario, including those in manufacturing, retail and wholesale trade, specified business services and repair services.

The Core Industrial Program provides contributions to manufacturers, processors and selected service businesses.

The FedNor Loan Insurance Program provides insurance on long-term loans for capital investment.

During the year under review, FedNor introduced its new Tourism Program which provides contributions for tourist accommodation and marina projects, as well as for certain major tourist attractions, such as tour boats, ski resorts and theme parks.

Since the introduction of the FedNor initiative, almost 300 projects have received more than \$20 million in FedNor assistance, creating more than 2 000 jobs. Because of its success, FedNor was allocated an additional \$14 million in 1989-90 to bring its total funding to \$69 million.

In addition to the ongoing program responsibilities, the past year saw FedNor participate on two federal-provincial committees. These committees were established to focus and coordinate government action in Timiskaming and Elliot Lake, two communities facing severe economic dislocation because of mine closures. Through its Procurement Initiative, FedNor is also actively assisting Northern Ontario business people to sell their products and services to the federal government.

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# Aboriginal Economic Programs

**I**n June of 1989, the Canadian Aboriginal Economic Development Strategy was launched as a joint initiative of ISTC, Indian and Northern Affairs Canada, and Employment and Immigration Canada, in partnership with Aboriginal communities and business leaders. The strategy has as its long-term goal, the economic self-reliance of Canada's Aboriginal people.

In a departure from the past, there is no pre-set lifespan for the strategy. Funds will be allotted yearly, as part of the partner departments' regular base budgets. Initially, a total of \$873.7 million has been allocated to Indian and Northern Affairs Canada and ISTC for the strategy's first five years.

The Canadian Aboriginal Economic Development Strategy is intended to encourage Aboriginal individuals, businesses and communities to increase their participation in national economic activity. The three departments will provide Aboriginal people with the means to manage business enterprises and economic institutions as well as opportunities for job training and skill development. During the first year of the strategy, the partner departments established mechanisms to coordinate program efforts and available resources.

At ISTC, a two-year consultation process has culminated in the reorganization of previous business development programs to produce new Aboriginal economic programs. These will expand the kinds of activities which can be supported, and better respond to the needs of the client groups they are intended to serve.

The eight components in the Canadian Aboriginal Economic Development Strategy are as follows:

- ◆ Aboriginal Business Development
- ◆ Joint Ventures
- ◆ Aboriginal Capital Corporations
- ◆ Research and Advocacy
- ◆ Access to Resources

- ◆ Community Economic Planning and Development
- ◆ Skill Development
- ◆ Urban Employment

The department has responsibility for the Aboriginal Business Development Program, the Joint Venture Program and the Aboriginal Capital Corporations Program, and shares responsibility with Indian and Northern Affairs Canada and Employment and Immigration Canada for the Research and Advocacy Program.

Five additional ISTC Aboriginal Economic Programs offices were opened during the year, bringing the total to nine across the country. As a result, client access to program information and services has been greatly improved.

Aboriginal Economic Programs support is available to Canadian Status and non-Status Indian, Métis and Inuit individuals, associations, partnerships, profit and non-profit groups, as well as other entities which are either majority owned or controlled by Aboriginal people.

Under the former Native Economic Development Program, 28 Aboriginal Capital Corporations were established to form a network of autonomous, community based aboriginal financial institutions specializing in developmental small business lending. These corporations continued their growth and expansion in 1989-90 as contributions awarded under the program continued to be disbursed.

In March 1990, the Minister of State (Small Businesses and Tourism) announced appointments to the National, Eastern and Western Aboriginal Economic Development Boards. These boards are made up of businesspersons — most are Aboriginal — who play a unique role in the delivery of the Canadian Aboriginal Economic Development Strategy components for which ISTC is responsible. Their participation means that Aboriginal people have a direct and ongoing involvement in the program decision-making process. The two regional boards review applications for Aboriginal

Economic Programs investment from their respective regions while the national board makes recommendations on very large projects and sets out policy direction for ISTC programs under the Canadian Aboriginal Economic Development Strategy.

The objectives for ISTC as a partner in the strategy are as follows:

- ◆ build aboriginal business capacity and a cadre of new and skilled entrepreneurs;
- ◆ expand the network of Aboriginal financial institutions and diversify their activities;
- ◆ exploit economic development opportunities for Aboriginal individuals and communities;
- ◆ support the development of opportunities through conferences and seminars which lead to business development; and
- ◆ promote a greater awareness of Aboriginal business achievement.

In 1989-90, authorized assistance to various projects under Aboriginal Economic Programs comprised the following:

- ◆ program investments in the Aboriginal Business Development Program of \$5 969 601; and
- ◆ contributions, through the Research and Advocacy Program, of \$170 209.

No new contributions were awarded to Aboriginal Capital Corporations in the short time the new programs have been in operation.

Continuing expenditures under former programs which expired on March 31, 1989, consisted of the following:

- ◆ Native Economic Development Program, \$61 103 268;
- ◆ Special Agricultural and Rural Development Agreement program, \$10 290 892; and
- ◆ Northern Development Agreements, \$11 412 991.



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# Finance, Personnel and Administration

**T**he Finance, Personnel and Administration Sector provides executive direction, control and operational support in managing the department in the functional areas of finance, information management, human resources, administrative services, access to information and privacy, and corporate development.

The sector is made up of the Comptroller, Information Management, Human Resources, Administrative Services, the Access to Information and Privacy Office, the Corporate Development Secretariat and the Sector Administration.

## Comptroller

The Comptroller's Branch is responsible for the application of professional accounting and financial and resource management standards and practices for all policies and programs of the department.

The following four directorates form the branch:

- ◆ Resource Management Directorate, responsible for advising departmental managers on resource planning, allocation and controls, and for preparing financial documents including departmental budgets, monthly resource-management reports, main and supplementary estimates, and multi-year operational plans;
- ◆ Accounting Services Directorate, responsible for accounting for and controlling the financial resources of the department;
- ◆ Financial Policy and Systems Directorate, responsible for financial information systems, policies, practices and the provision of financial management training courses; and
- ◆ Contribution Verification Directorate, which develops and implements policies, processes, standards and procedures for the audit of projects under ISTC assistance

programs, and provides functional direction to regional and headquarters personnel involved in project audits.

## Information Management

The Information Management Branch is responsible for direction and control in the management of the department's information resources.

Its activities include the following:

- ◆ preparation of policies, standards, plans and strategies;
- ◆ administration of the corporate data bases and provision of data management services;
- ◆ management and support of projects to develop, operate and maintain computer-aided information systems; and
- ◆ provision and operation of all mainframe and personal-computer facilities, including hardware, telecommunications and office automation networks.

## Human Resources

The Human Resources Branch is responsible for the following:

- ◆ providing direction and advice on the development and administration of policies, programs, practices and systems related to the management of human resources;
- ◆ ensuring that statutory and central agency requirements are met in personnel administration, classification, staffing, training and development, employee relations, counselling, compensation, human resources planning, employment equity and official languages; and
- ◆ advising on organization design and human resource management during and after the establishment of ISTC.

## Administrative Services

The Administrative Services Branch is responsible for the development, implementation and provision of all corporate administrative services at headquarters; the provision of either services or functional support to regional offices; and liaison with central agencies. The responsibilities of its two directorates and four divisions are outlined below:

- ◆ Administrative Policy, Manuals and Passports Division: departmental manual system, distribution lists, and passports;
- ◆ Contracts and Procurement Services Division: contract management for goods and services, forms design, and printing;
- ◆ Facilities Management Directorate: property, furniture and asset management, and telecommunications services;
- ◆ Library Services Division: information and document delivery on subjects within the department's mandate;
- ◆ Records Management Division: organization and preservation of and access to departmental records; and
- ◆ Security and Safety Directorate: assurance of a secure and safe environment for people, data and equipment.

## Access to Information and Privacy Office

The office is responsible for the following:

- ◆ developing policies and procedures on access to information and privacy issues;

- ◆ advising senior management on the administration of the legislation and dealing with cases;
- ◆ assisting the public with access requests; and
- ◆ approving departmental information collection proposals in accordance with government policy.

## Corporate Development

The Corporate Development Secretariat is responsible for the following:

- ◆ assisting management in defining a set of corporate values and providing guidance for the development of a strong corporate culture within the department;
- ◆ ensuring managerial and employee involvement and participation in the corporate development process, which includes the work of various working groups dealing with issues such as participative management, internal communications, management of human resources and related activities such as Corporate Focus Days and executive conferences;
- ◆ assisting in the development of a more positive and supportive work environment by putting in place processes to identify potential improvements, particularly in procedures in the areas of financial practices, administration and the management of human resources; and
- ◆ keeping employees informed of the progress made in the area of corporate development.

# The Regions

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# Newfoundland

**D**uring the year under review, the Newfoundland Regional Office focused its resources on high-impact activities within targeted growth sectors to improve the competitiveness of Newfoundland industry.

## Industrial Development

The office continued its involvement with trade missions in defense procurement, major Crown projects and offshore petroleum developments. It held a series of networking and training seminars on advanced industrial materials, quality assurance, ocean technology, biotechnology, electronics and telecommunications. One result of this effort was the establishment of a Newfoundland Quality Assurance Association to help local firms participate in offshore development and major Crown projects.

The Newfoundland office was instrumental in assisting several firms to obtain defence contracts and develop strategic alliances for offshore development through industry missions to or from the United States, Norway, Japan, the Soviet Union and Italy.

A key achievement was the departmental approval of the Fishery Products Sector Campaign which had been advocated by the Newfoundland Regional Office and the Service Industries and Consumer Goods Branch.

Under Economic and Regional Development Subsidiary Agreements, agreements dealing with pulp and paper mill modernization and tourism development concluded and the office monitored their wrap-up.

## International Trade

In implementing its mandate to support international trade services, the International Trade Centre continued to promote the programs and services of EAITC to the business people of Newfoundland.

An increased number of companies were assisted through the New Exporters to Border States program, the first Newfoundland New Exporters to the U.S. South mission to San Juan, Puerto Rico, and a trade, technology and investment mission with the Hong Kong-Canada Business Association to Hong Kong, Taiwan and the Republic of Korea.

The first Seafood Outlook conference was highly successful. More than 100 fishing industry representatives were provided with up-to-date foreign market information by foreign buyers and agents. Two seminars on accessing the U.S. market under the FTA were held in cooperation with industry associations.

Industry missions to Europe (fisheries), the northeastern United States (tourism) and to Boston (crafts) were successful, while ISTC officers participated in a number of sectoral trade shows in both Europe and the United States. Finally, an export opportunities bulletin, *Exporter Update*, was established.

**D**uring the year under review, the Prince Edward Island office began the process which will result in an administrative merger with the New Brunswick office and the reduction of its staff to six people by the 1991-92 fiscal year.

## **International Trade**

The International Trade Centre continued to play an active role in the P.E.I. business community. During the year the International Trade Centre arranged for 30 local exporters to participate in trade missions to the United States and Puerto Rico. Under the Program for Export Market Development, the number of approved projects increased to 38 from 21 during the previous year.

## **Industrial Development**

The department was the lead federal participant in negotiations to establish two major potato processing plants in the province, estimated to cost \$35 million each.

The P.E.I. office continued to sit on the planning committee and to manage the industrial benefits of the Northumberland Strait Crossing Project.

A Cull Potato Study was initiated to assess the viability of processing potato starch into biochemical products more efficiently.

In tourism, all outstanding activities under the ERDA Tourism Development Agreement were completed.

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# Nova Scotia

**D**uring 1989-90, the activities of the Nova Scotia Regional Office focused on promoting the international competitiveness of Nova Scotia firms, while continuing the administration of agreements and programs of the former department.

## International Trade

During the year, the International Trade Centre was highly visible, and provided a full range of services. It introduced 50 companies to the U.S. market through three New Exporters to Border States missions, and provided support for a number of trade education seminars and Export Marketplace '89, which was the third-best-attended event in Canada.

The centre also undertook a study of opportunities in the Caribbean, worked with Dalhousie University to develop a software package for export quotations, initiated a new program under which international business students would undertake cooperative marketing projects in Europe on behalf of sponsoring Nova Scotia companies, and administered 115 Program for Export Market Development projects (an increase from 70 in the previous year), including three marketing agreements, the first for Nova Scotia.

The office began a targeted investment promotion program in the Federal Republic of Germany. It also organized and led a mission (with participation from 10 Atlantic Canadian firms) to the United Kingdom, France and Italy to prepare for the upcoming Canadian mine sweepers procurement. A study of opportunities for joint ventures between the United Kingdom and Nova Scotia ocean industry firms was begun.

## Industrial Development

Clients in key sectors were encouraged to take advantage of new ISTC programs, such as the Advanced Manufacturing Technologies Application Program and the Strategic Technologies Program.

The Nova Scotia office encouraged the formation of a strategic alliance between three Canadian companies (one of which, General Composite Technology Ltd., is based in Nova Scotia) and the Technical University of Nova Scotia to create a Canadian capability in advanced materials for the marine environment.

The office sponsored a tourism technology awareness workshop, focusing on potential applications, in line with the ISTC mandate to stimulate the development and use of technology within the Canadian tourism industry.

Over the course of the year, the office organized 10 different S&T information sessions to enhance the knowledge base of employees and expose private sector clients to strategic technologies.

Initial planning, market research, staffing and physical set-up was undertaken for the establishment of a Business Service Centre. The centre will be a gateway to ISTC services and a way to increase both internal efficiency and the effectiveness of service delivery to clients. The centre is part of a national network of centres designed to meet client needs for information and services.

The office also worked with the Province of Nova Scotia to administer the Canada-Nova Scotia Tourism Subsidiary Agreement. During the fiscal year, \$2 338 958 in federal funds was provided for 51 projects, including the Anne Murray Centre, a feasibility study on an Atlantic Canada Accommodation Grading System, an expansion of the Grand Hotel in Yarmouth, enhancements to Peggy's Cove and marketing seminars involving the United States National Tour Association. The office also engaged in consultations with the province on future federal tourism programming.

During the year, staff worked with the province to administer the Stage II Modernization of Facilities at the Sydney Steel Corporation. More than \$21 million of federal funding was committed to this project, which was 95 percent completed by the end of the fiscal year.

Construction was almost completed at the ISTC-funded Louisiana Pacific gypsum fibre-board plant in Point Tupper. The project, which will use Nova Scotia raw materials to produce an export product, is expected to create 100 jobs in the Strait of Canso area.

The Nova Scotia office assisted the Atlantic Canada Opportunities Agency in the delivery of the Canada-Nova Scotia Technology Transfer and Industrial Innovation Agreement. Staff continued to assess and provide recommendations to the

minister on major projects under the Cape Breton Investment Tax Credit Program and the Atlantic Enterprise Program.

Finally, over the course of 1989-90, the Nova Scotia office consolidated its organization, moved into new office space and set up a computerized industrial client data base. Officers participated in the development of several national sector campaigns and developed relationships with companies in a number of strategic sectors.

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# New Brunswick

**I**n 1989-90, the New Brunswick office improved its organizational structure to establish ISTC as a reliable source of information in the region in the three major areas of trade, industrial development, and technology and investment development.

## International Trade

The office and the International Trade Centre organized several trade missions to Greenland, Iceland, the United States and Japan involving more than 100 New Brunswick firms.

A Trade Strategy Study for New Brunswick and market opportunity analyses on Greenland, Iceland, Puerto Rico and the Dominican Republic were completed.

Trade Commissioners visited 60 New Brunswick firms during Marketplace '89.

The number of authorized Program for Export Market Development applications increased by almost 80 percent over the previous year — from 70 to 125 — and allowed increased participation by New Brunswick companies at several conferences and fairs in the United States.

Efforts to promote exports to the United States to maximize benefits under the FTA were increased. Approximately 75 percent of the region's promotional work was directed toward the United States.

## Industrial Development

The office focused its efforts on key industrial sectors: primarily fisheries and aquaculture, mining, metal fabrication, forestry, tourism, and environmental industries.

ISTC helped organize a symposium entitled "Environment — Make it Your Business", which was attended by 150 New Brunswick clients. It was the first time such a symposium was organized to promote New Brunswick environmental industries.

Seminars were held with more than 300 clients in the forestry, fisheries and metal fabrication sectors to promote ISTC services, international competitiveness, the FTA and new technologies.

In tourism, a federal strategy for New Brunswick was developed, based on a strategy prepared by Tourism Canada. Implementation of projects under the \$52 million ERDA subsidiary agreement on tourism development continued.

## Technology and Investment Development

DISTCover, the technology transfer service, is now ready to be implemented across Canada. The exhibit was used at 13 public forums in New Brunswick, Manitoba and Alberta, where up to 400 companies were exposed to its data base and other ISTC components.

Over the year, three Technology Partners Forums were organized. These events brought together representatives from the private sector, governments, universities and research centres involved in the development, diffusion and application of technology in New Brunswick.

Eight sessions were undertaken with public and private sector experts from various fields in support of technology and investment development.



**D**uring the year under review, the management committee of the Quebec Regional Office authorized three additional contributions to Quebec companies under the Canada-Quebec Subsidiary Agreement on Industrial Development. As a result, the agreement's budget was virtually exhausted by the end of March 1990, with nearly 98 percent of the funds for major projects already committed.

Under the infrastructures component, contributions totalling \$3.5 million were awarded to seven municipalities for infrastructure projects. Since the agreement was signed, 54 municipal governments have received financial assistance for 66 projects.

### International Trade

The office has been very active internationally in the electronics and informatics products sector, organizing a number of missions to the United States and Europe to market products, identify foreign partners and attract investment. The office also played host to a number of foreign missions, primarily from Asia.

In order to promote the products of companies in this sector, directories of Quebec companies specializing in telecommunications, municipal software, heating equipment, air conditioning and ventilation, and automation were compiled. The office also has published profiles on the telecommunications and lighting sectors as an aid to their industrial development over the medium term.

In conjunction with the provincial government and the private sector, the office initiated and awarded a contract for a feasibility study on the establishment of a Canadian software engineering centre in Quebec. A pilot project to assist in the preparation of marketing plans in the software industries also was implemented.

The office has been very active in promoting the transportation, defence and aeronautics industries sector to foreign buyers, organizing a number of missions to Europe, the United States and the Far East to scout new markets and new

technologies, and to attract new investment. These activities were intended to support the advanced technology sectors such as aeronautics, aerospace, automotive, marine-related industries and advanced materials.

### Industry and Technology

The office implemented a pilot project to assess the levels of technology used in third-tier aeronautics companies in order to clearly define their needs as well as the steps required to maintain and strengthen Canada's international competitiveness.

The Quebec Regional Office also invited and hosted delegations from industrial biotechnology associations in Japan, France, Belgium and the United States for the conference on international strategic alliances in biotechnology, held in Montreal in December 1989.

The office initiated and coordinated the production of a brochure entitled *Les biotechnologies au Québec, la conquête d'un nouveau monde* [Biotechnologies in Quebec, The Conquest of a New World], copies of which were distributed during this conference.

With regard to exports, the International Trade Centre, in addition to its usual activities, sought to focus attention on the Going Global strategy announced in the spring of 1989.

To this end, it organized a number of activities, including promotion of the FTA through visits to border crossing points, and encouragement for companies trying to penetrate the American market through the Program for Export Market Development and the New Exporters to the U.S. South Program. Symposiums were also organized on Europe '92.

Finally, the theme chosen for Export Trade Month in Quebec was the globalization of markets. A number of workshops and industrial visits conducted by the chairman of Export Trade Month and the chairman of the Quebec Chamber

of Commerce were designed to increase the Quebec business community's awareness of the need to globalize their businesses.

On the tourism front, the 1989-90 fiscal year marked the end of the Canada-Quebec Subsidiary Agreement on Tourism Development. During the year, contributions totalling \$9.8 million were awarded to some 82 projects.

The main projects selected used up the full \$10 million allocated to the Saguenay Park

vicinity component. These included the Mont-Edouard ski centre and the Tadoussac marine environment interpretation centre.

As of March 31, 1990, this \$100-million agreement, signed in 1985, had received 629 applications with 395 projects approved, for a total of \$99.8 million in financial assistance. In terms of spin-offs, the amount of direct investment made as a result of these contributions is estimated at \$293.7 million.

**D**uring 1989-90, the Ontario Regional Office intensified its focus on the non-funded services-to-business role envisaged in the department's new mandate, while continuing to deliver ISTC-funded programs and perform the residual activities associated with the programs of the former department of Regional and Industrial Expansion.

Its main objective in responding to client needs was the improved international competitiveness of Ontario businesses.

## **Industry and Technology Development**

The office assumed responsibility for the delivery of the Meetings, Conventions and Incentive Travel Initiative on behalf of Tourism Canada. Cooperation with other regional offices and with posts abroad resulted in the identification of new markets, private-sector-led missions and investment opportunities in the United States and overseas.

A pilot project under the Technology Needs in Business Services was completed in the materials-handling equipment sector. The project evaluated the opportunities for technology related development in a sample group of 26 companies. Significant technology transfer opportunities were identified. The results are presently under evaluation with a view to providing this type of assistance as an ongoing ISTC service.

During the year, the Ontario Furniture Initiative Agreement was signed with the Ontario Furniture Manufacturers' Association, the Government of Ontario, representative unions and Employment and Immigration Canada. The initiative is aimed at improving the overall competitiveness of household furniture manufacturers in Ontario through the introduction of advanced manufacturing, the development of domestic and international markets and the adoption of best business practices.

The Advanced Technology in Red Meats Initiative has completed its second year of a three-year plan. The challenge for the office is to increase and improve competitiveness in the red meat industry and provide guidance in the area of R&D. The project is a combined effort between the Ontario Regional Office, various industry associations, and the provincial government.

The Canada-Ontario Tourism Development Agreement ceased accepting applications as of October 1989. The agreement was jointly funded by the provincial and federal governments. During the 1989-90 fiscal year, ISTC contributed \$3.7 million toward five resort or attraction projects, 11 feasibility and planning studies and one marketing project.

Evaluation of all outstanding Industrial and Regional Development Program projects was completed. Under this program, which ended June 30, 1988, approximately 290 projects continued to be monitored for payment and audit purposes. Some 389 payments totalling \$31.2 million were recorded in the departmental data system. An additional 40 payments totalling \$10 million were made on other programs such as the Microelectronics and Systems Development Program, the Strategic Technologies Program, the Technology Outreach Program, and other special office initiatives.

The district offices in London and Ottawa, which were established in response to the peak workload associated with the Industrial and Regional Development Program, closed in 1989 with the termination of the program. This restructuring will allow the Ontario Regional Office to improve client services through sector specialization in the Toronto location even with reduced human resources.

After the April 1989 introduction of the Advanced Manufacturing Technology Application Program, the Toronto office appointed a program coordinator to facilitate the program. The program supports consultant diagnostic studies of manufacturing operations. During the year, 51 applications were approved, resulting in a commitment of about \$1 million.

The office also joined industry sector branches in the planning for the Advanced Manufacturing Technology Sector Campaign. A \$1.25 million budget has been allocated for the completion of studies on Canadian capabilities and needs in manufacturing sectors.

The Business Service Centre (BSC) responded to more than 22 000 walk-in, telephone and mail inquiries from the business community. Plans are well under way to expand the range of services and to upgrade the facilities available to entrepreneurs through the BSC in Toronto.

## International Trade

The International Trade Centre marked its second year as part of the Ontario Regional Office, fulfilling its role as a one-stop export development service for Canadian business.

During the year, Ontario manufacturers had the opportunity to participate in about 264 international trade fairs and missions abroad. In all, the office assisted with 60 international fairs, 80 incoming missions, 30 outgoing missions, 87 trade seminars and workshops, and 7 government procurement workshops.

The Ontario portion of the high-level Keidenran-Japanese Investment Mission this year was a collaboration between the International Trade Centre and the Ontario Ministry of Industry, Trade and Technology. More than 500 registrants participated in an evaluation of Canada as a potential area for investment.

In June 1989, the International Trade Centre, in cooperation with the Canadian consulate and the Ontario Ministry of Industry, Trade and Technology, organized the Free Trade Frontier in Buffalo. The project dramatized the advent of the FTA and focused on the new opportunities it has generated. The event attracted about 2 500 participants.

The Ontario-Texas Round Table Seminar attracted 200 participants. The issue for discussion was the prospects for technology and joint venture collaboration with Ontario companies.

Export Marketplace '89 activities focused on three major centres: Toronto, London and Ottawa. In total, more than 480 companies registered for the event. Activities in 16 smaller centres across Ontario included company visits, seminars and various one-on-one meetings.

During the year 10 successful Trade Shows Made Profitable workshops were held throughout Ontario. These workshops attracted about 600 Canadian business people.

The ISTC Ontario Regional Office continued to provide a full range of industry, trade and technology services and programs to its clients in Northern Ontario, while regional development initiatives remained the responsibility of the FedNor offices there.

**D**uring 1989-90, the Manitoba Regional Office focused on improving industrial competitiveness, promoting and facilitating technology transfer and implementing services to business. A major thrust was enhancing trade performance under the FTA climate.

The BSC offered counsel and provided research expertise to Manitoba entrepreneurs on the wide range of federal programs and services available, especially those from the ISTC and EAITC. More than 15 000 inquiries were answered during the course of the year. Staff at the BSC accepted speaking engagements and participated in seminars and trade shows to promote various activities.

## Industrial Development

More than 400 Manitoba companies export their products and services. In 1989-90, Manitoba's exports to the rest of the world totalled \$2.7 billion. The manufacturing industry was responsible for 55 percent of this figure. The Manitoba office helped these companies identify and pursue new export opportunities.

Seminars and trade shows were organized to showcase new business opportunities and to increase awareness of the advanced manufacturing technologies available.

The launch in Manitoba, New Brunswick and Nova Scotia of the new Manufacturing Visits Program, a pilot service which helps manufacturers assess advanced manufacturing technologies, proved quite successful.

In addition, the Science and Technology Awareness Network, a new service to raise the awareness of the importance of S&T to Canada's future economic well being, was launched in cooperation with the National Research Council's Canadian Institute of Industrial Technology and the Winnipeg Business Development Corporation.

Strategic alliances were promoted and developed to boost the technological base of Manitoba. In addition, preparations were made to launch the

new DISTCoverly service in Manitoba and other western provinces to help companies to seek out and acquire new business opportunities.

During the year under review, the Manitoba office was responsible for continuing delivery of programs under the Economic and Regional Development Agreement.

Under the General Development Agreement, the Canada-Manitoba Northern Development Subsidiary Agreement expired on March 31, 1989 after 17 consecutive years of activity in Manitoba's north.

The Northern Development Agreement, a joint initiative of the federal and provincial governments, contributed to local economic growth and employment creation for residents of remote northern and native communities in the province by providing training and educational opportunities. Although the agreement expired on March 31, 1989, projects approved prior to its expiry continued to receive funding until March 31, 1990.

Similarly, even though the Special Agriculture and Rural Development Agreement program expired on March 31, 1989, the Manitoba office continued to provide funding for projects approved before the expiry of the program until March 31, 1990. The purpose of the program was to fund commercial undertakings and primary producing activities to create small businesses and jobs, as well as raise income levels in rural communities. The program focused on the needs of native people who have had meagre earnings and little access to regular employment, and helped them establish small enterprises and resource-harvesting ventures.

Within the framework of the Economic and Regional Development Agreement, the Canada-Manitoba Urban Bus Subsidiary Agreement on Industrial Development expired on March 31, 1989, although wind-down activities continued until March 31, 1991.

Activities under the expired Canada-Manitoba Tourism Development Agreement (March 31,

1990), will continue to receive funding until March 31, 1992. Some of the most important of these include the planning phases of the Forks Tourism Centre, the Grand Beach Resort Development and the construction of a four-season resort in Gimli, Manitoba.

The office also saw the launch of selective major marketing and industry productivity enhancement initiatives, which included an overseas marketing campaign, border-entry information centres and SuperHost, a tourism awareness program. Activities included tourism industry seminars and the promotion of the department's funded programs.

### **International Trade**

The major focus of the Manitoba Regional Office trade activities was the economic importance of international trade to both Canada and Manitoba. This was the trade strategy outlined in the International Plan, which was also emphasized during Canada Export Trade Month.

Other major activities — such as the combined investment counsellors' and technology development officers' tour, Marketplace Tiers I and II, and the Science and Technology Officers' tour — have resulted in even greater demand by business for trade and technology activity support.

A significant increase in Program for Export Market Development activity and a combination of eight U.S. missions led even more Manitoba companies to enter the export marketplace.

Manitoba staff also hosted numerous trade and VIP delegations and missions, as well as foreign buyers' groups like the Japanese Investment Study Mission.

A trade mission organized by the Manitoba office sent 10 Manitoba companies to India and Pakistan. Results were excellent: sales, follow-up orders and several joint venture opportunities.

**D**uring the 1989-90 fiscal year the Saskatchewan Regional Office moved strongly into its new mandate to improve industrial excellence and international competitiveness. It established a Business Services Branch which, together with the Technology Services and Industrial Development Branch, provides a full range of information services to clients at the Business Resource Centre.

## Industry and Technology

The Advanced Technology Agreement expired on March 31, 1989, although monitoring continued and 1989-90 payments on existing contracts totalled \$616 000 on 12 projects.

On July 5, 1989, the office signed an agreement with the Saskatchewan Advanced Network Authority to contribute up to \$18 000 000 over five years toward the development of a highly innovative communications network. Using advanced communications technology, it will provide programs and information to a dispersed audience throughout the province. During the year, \$3 114 600 in payments were made toward the project.

Late in the year, the Forest Industries Research and Development and Innovation Program was promoted selectively, along with the Advanced Manufacturing Technology Application Program and the information technologies component of the Strategic Technologies Program.

Five projects were also approved in the metals and metal-fabricating industries under the Advanced Manufacturing Technology Application Program. In the food processing and health care sector, the department helped establish several federal-provincial working groups as well as the organizing committee for the formation of the Saskatchewan Food Processing Association.

The office originated a television program and a newspaper series on entrepreneurship. It also assisted in the development of a Young Entrepreneur Association and provided the

chairman for the organizing committee of Canada's first National Conference on Entrepreneurial Education.

The office helped establish the first annual Inter-collegiate Case Competition on the Management of Technology, organized by the Business and Engineering Development Association at the University of Saskatchewan. Nineteen teams with representatives from 21 universities competed in solving technology management problems.

Activities at the Business Resource Centre included the installation at the University of Saskatchewan of a data base of research activity and scientific capabilities in health sciences. Similar information on a wide range of Saskatchewan industries was built into the departmental data base.

The Corporate Services Branch was formed in 1989 by integrating the policy, planning, computer services and coordination functions of the Saskatchewan Regional Office with the financial and administrative responsibility centres. Its activities included the development of intelligence networks on marketing, trade, technological and scientific information and collaborative endeavours such as FED/PROV/NET, a network of regional office policy directors, and Memoranda of Understanding with the department of Western Economic Diversification and Agriculture Canada to coordinate development efforts in agriculture and food processing.

Four subsidiary agreements and the Special Agricultural and Rural Development Agreement program expired this year. Under these programs, the Saskatchewan office gave service support to the Aboriginal Economic Program, joined the department of Indian Affairs and Northern Development Canada and the Government of the Northwest Territories officials in Phase I of the evaluation of the N.W.T. Economic Development Agreement, and began the evaluation of the Canada-N.W.T. Small Business Development Agreement as well as the Tourism Development Agreement.

Under the Special Agricultural and Rural Development Agreement program, which expired on March 31, 1989, the department's portion of accepted offers was \$2 003 190 for 40 projects. Expenditures totalled \$3 064 000.

Regina office activities centred on trade, tourism, general business services, the Aboriginal Economic Programs, intelligence gathering and liaison with federal and provincial offices.

Audits and expenditures of the many projects still in process under the expired Canada-Saskatchewan Subsidiary Agreement on Tourism totalled \$2.1 million. The agreement was amended to extend project completion dates to December 31, 1990, and an evaluation was completed. Meanwhile, work on the new Tourism Program in Western Canada continued.

## International Trade

As part of its corporate plan this year, the International Trade Centre initiated a Client First strategy. Accordingly, the International Trade Centre organized meetings with the provincial government and the department of Western Economic Diversification to ensure that the prospective clients are directed toward the provincial or federal programs best suited to their needs.

The two major Saskatchewan trade fairs, The Farm Progress Show (150 buyers) and Agribition (470 buyers), were held in Regina. Meanwhile, the International Trade Centre continued to focus its efforts on helping Saskatchewan firms export to the United States and other world markets. Many commercial enterprises, such as prairie farm-machinery companies, members of livestock associations and food processing companies, participated in the Program for

Export Market Development, the New Exporters to Border States Program, the New Exporters to the U.S. South Program, and the New Exporters to Overseas Markets (NEXOS) Program.

The centre continued its close working relationship with the College of Commerce, University of Saskatchewan. International Trade Centre Trade Commissioners made available an EAITC grant of \$100 000 annually over five years to the college and served on its board of directors.

Departmental officers also acted as guest lecturers for advanced marketing courses and advised graduate students on the trade mission to Asia-Pacific on international marketing strategies and plans.

The Program for Export Market Development in particular increased by 27 percent over the previous year as Program for Export Market Development expenditures rose by 61 percent.

Marketplace brought 17 Foreign Service Trade Commissioners from posts around the world to Saskatchewan. Finally, the International Trade Centre organized the first trade mission to the newly independent nation of Namibia. By organizing seven companies and 15 associated companies into a provincial consortium, the centre proved that small and medium-sized firms can compete in world markets.

In trade, a mini Marketplace was undertaken in conjunction with the Regina Chamber of Commerce. Thirteen of the commissioners visited Regina, four other communities and many businesses in southern Saskatchewan. In January 1990, a New Exporters to Border States mission to the United States in the farm machinery sector was organized. A resource centre was also established and received many requests for literature, especially on trade and tourism.



**D**uring the 1989-90 fiscal year, the Alberta Regional Office worked toward the following:

- ◆ enhancing the technological development, growth and international competitiveness of key priority sectors;
- ◆ helping exporters and potential exporters profit from international opportunities, including those arising under the FTA;
- ◆ improving the business climate for Alberta firms through policy, advocacy and entrepreneurship initiatives; and
- ◆ continuing the delivery of funded programs through the Tourism Development and Northern Development Subsidiary Agreements.

## **Industry Development and Technology Services**

Working in cooperation with other federal government departments and agencies, the Alberta government and Sherritt Gordon Limited, ISTC agreed to contribute funding under the Strategic Technologies Program toward a \$140-million Advanced Industrial Materials initiative at Fort Saskatchewan.

Sherritt Gordon has established a new organization, Westaim, for this purpose. With widespread participation by industrial allies, universities and other research organizations, Westaim will be an international leader in advanced industrial materials research, development and commercialization.

The office helped sponsor a Manufacturing Opportunities Conference in Calgary in November where delegates received first-hand information from senior executives of major companies across Canada.

In January, the Alberta office hosted a Technology Transfer Workshop in Calgary. The three-day event gave ISTC officers in Western Canada an opportunity to become familiar with the

technology transfer process and services, and with the information sources that are available to assist firms with technology transfer. An afternoon session with Calgary business people presented an excellent opportunity for networking and disseminating information on marketing and technology opportunities.

Sector campaign activities continued, as did participation in a number of major trade shows including the Industry and High Technology Show, the International Forestry Show, and InterCan '89, an oil and gas show, all held in Edmonton. The Alberta Regional Office continued to provide information to Alberta businesses on marketing and technology opportunities that could enhance international competitiveness.

## **Trade and Investment**

The International Trade Centre has expanded its delivery of trade services and programs to the business community by establishing a Trade Centre office in Calgary to complement the Regional Centre in Edmonton. The Canadian International Development Agency (CIDA) office is located in the Trade Centre, and the Export Development Corporation is located in the same building. Their presence at one location improves service to the business community.

The International Trade Centre was active in the three trade shows mentioned above, bringing foreign buyers to InterCan '89. Successful Europe 1992 seminars were held in Edmonton and Calgary in March, as were Export Trade Month and Marketplace. A Centre for International Business Studies was created at the University of Alberta by EAITC to bring together the academic and business communities in international business matters.

The New Exporters to Border States Program was very active in Alberta and the Program for Export Market Development continued to support Alberta exporters attending trade fairs and pursuing market ventures outside Canada. Of the 622 Program for Export Market

Development applications received in Alberta in this fiscal year, 425 were approved, with expenditures totalling \$1.17 million.

## **Other Initiatives and Services**

Marcel Ducharme of Bonnyville, Alberta, was appointed chairman of the National Entrepreneurship Development Institute. An Alberta chapter of the institute was launched in 1989-90. As well, the Alberta office played an active role in the Alberta Opportunity Company's Entrepreneurs Conference in Calgary in late September by sponsoring a Winning Strategies seminar that featured presentations by Canada Awards for Business Excellence winners in Alberta.

An industry development officer from the Calgary office visited Japan for five weeks through the Industrial Cooperation Agreement between Canada and Japan. The main purpose of the visit was to gain an understanding of the biotechnology industry in Japan and the roles the Ministry of International Trade and Industry and other public sector organizations play in supporting the Japanese biotechnology industry.

Business Service Centres were established at both the Edmonton and Calgary offices. The centres offer a wide range of services and materials for private-sector clients, including publications, directories, audio-visuals, data bases and a resource library.

The department continued to administer two Canada-Alberta subsidiary agreements. The \$56.3-million Tourism Development Agreement expired at the end of the 1989-90 fiscal year. The five-year program offered assistance in six key areas ranging from product and facility development to opportunity analysis and evaluation. During 1989-90, the department committed \$14.5 million to 157 projects.

Under the Northern Development Agreement, \$40 million was allocated over five years to provide assistance to businesses, institutions and communities in northern Alberta for the development of businesses, human resources and infrastructure. During the year under review, 64 projects received offers of \$2.7 million from the department.

**D**uring 1989-90, the British Columbia Regional Office continued to promote the international competitiveness and scientific excellence of B.C. business through the application of S&T.

Major events included Globe '90, the first-ever worldwide conference and trade show on global opportunities for business and the environment, held March 19-23 in Vancouver; and Airshow Canada, the largest aerospace trade show and symposium ever held in North America, on August 11-13, 1989, at Abbotsford.

Other significant activities are described below.

## Industry and Technology Services

The office administered the Canada-British Columbia Subsidiary Agreement on Science and Technology by stimulating development in three broad areas: the Advanced Systems Institute, biotechnology (support for "clean room" and bioprocessing facilities in the lower mainland), and University-Industry Liaison Offices with the three major B.C. universities.

The office developed and negotiated a major amendment to permit financial support for the Pharmalac project, a \$15-million commercial joint venture to stimulate the development of the pharmaceutical and biotechnology industries in British Columbia, formally announced on March 20, 1990.

The office was also responsible for the integration of program responsibility for the Strategic Technologies Program, which encourages R&D alliances among firms, universities and research organizations in biotechnology, advanced industrial materials and information technologies.

In advanced manufacturing technologies, the office worked to enhance the international competitiveness of B.C. industry by stimulating the more effective use of such technology through:

- ◆ proposing initiatives with key industry associations to promote the increased use of advanced technologies by member firms; and
- ◆ working with the B.C. government on a sector campaign promoting joint research related to the state of technology applications in various industrial sectors of the province.

During the same period, the office provided support for the B.C. Science Council's SPARK (Strategic Planning for Applied Research and Knowledge) initiative, which is attempting to encourage greater use of S&T in all sectors of the province. Participation included membership on the advisory committee and sector task force, presentations to seminars, and direction on programs and projects (e.g. information technology to the forest industry).

Through the national forestry strategy, the Regional Office provided support to initiatives such as the joint Cooperative Industrial Market Development Program to develop new markets, identify appropriate technology for new product lines, sponsor marketing and technology for new product lines, and sponsor marketing and technology missions to Europe. The program is cost-shared 40 percent by the federal government, 40 percent by B.C., and 20 percent by the manufactured wood products industry of the province. The office also sponsored the forestry R&D program.

At the same time, the office initiated and upgraded quality control and testing program for B.C. shakes and shingles producers, and assisted the Shake and Shingle Association in its efforts to overcome a Los Angeles fire department ruling prohibiting the use of the product in the construction industry in that region.

## Trade

Trade assistance provided by the Regional Office included:

- ♦ organizing an electronics products mission to the Northcon trade show in Portland, Oregon, featuring eight B.C. firms;
- ♦ assisting an electronics components mission to San Diego, California, by five B.C. firms;
- ♦ organizing the participation of more than 20 B.C. firms at the Work Boat show in New Orleans, Louisiana;
- ♦ supporting 20 B.C. firms exhibiting in the Comdex show and five more at Supercom in Anaheim, California;
- ♦ coordinating B.C. activities of eight visiting Singapore firms looking for hardware and software (30 B.C. companies involved);
- ♦ organizing programs of meetings and visits for U.S. military personnel seeking advanced technology products from B.C.;
- ♦ assisting in formalizing the joint Cooperative Industrial Market Development Program and in the establishment of the B.C. Wood Specialties Group of 40 export-oriented forestry firms; and
- ♦ coordinating, on behalf of EAITC, the handling of log export permits.

## Investment

The office participated in and was responsible for organizing the B.C. portion of a number of major incoming investment-related missions, including:

- ♦ Keidanren Mission from Japan (investment survey);
- ♦ Hong Kong Human Development Institute (general interest);
- ♦ Federal Republic of Germany mission of manufacturing firms with specific individual interests; and
- ♦ Singapore biotechnology mission.

The office also updated the data base of B.C. venture capital firms, and:

- ♦ sponsored and participated in an Investors' Forum as a member of the group's advisory committee;
- ♦ provided individual counselling for potential investors from offshore (i.e. Hong Kong garment manufacturer, U.S. advanced material producer); and
- ♦ undertook a series of seminars to promote additional remanufacturing of wood products in the province.

## Tourism

Under the Canada-British Columbia Tourism Industry Development Subsidiary Agreement, which expired on March 31, 1990, the office approved a total of \$3.9 million in federal funding during the fiscal year for 57 different projects, 24 of which were directly administered by the office.

Tourism staff also began developing a topic-based computerized tourism intelligence system for B.C. More than 25 topic areas are now monitored, from cruise industry happenings to the proposed GST. Latest findings are being distributed to key industry clients. The local client list is being expanded into a new client management system which combines Tourism Canada's new national inventory of export-ready tourism firms with local office knowledge.

## International Trade Centre

The International Trade Centre continued to implement the Program for Export Market Development, which assists small and medium-sized firms to expand into new international markets. More than 500 applications per annum are processed, drawing on a budget of \$1.25 million.

The International Trade Centre sponsored a number of community initiatives during the year, including seminars on How to Profit From Trade Shows, Europe 1992, Food Products to Japan, and Accessing Aid Funds of the Inter-American Development Bank and the Asian Development Bank.

Numerous missions were carried out in support of the New Exporters to Border States and New Exporters to the Southern United States, as were three overseas missions: Food Products to Korea, Consulting Engineering Services to Japan, and a five-nation Association of Southeast Asian Nations (ASEAN) mission promoting Canadian aquacultural goods and services.

## **Policy, Planning and Corporate Services**

Policy, Planning and Corporate Services activities during the year under review included:

- ◆ a study into FTA adjustment under way within the fruit and vegetable processing sector in the province, as a prelude to a joint federal-provincial initiative leading to an industry seminar early in 1990-91;
- ◆ a profile of the B.C. medical devices sector for use as intelligence on competitiveness and opportunity areas;
- ◆ the design and launch of a seminar series on the FTA and Service Sector Exports, a joint federal-provincial pilot undertaking which will form the basis for an extensive effort in promoting service sector expansion into the United States;
- ◆ a study into just-in-time manufacturing and ranking of B.C. opportunity sectors as the basis for future work to stimulate interest in improved management practices;

- ◆ a study into R&D and B.C. industrial competitiveness showing the strengths and weaknesses of the current approach and distribution of R&D activity in the province and the implications for the province's competitive position; and
- ◆ an environmental sector product opportunities study, completed and provided to other regions, as well as to industry.

The branch also improved departmental productivity by:

- ◆ establishing a local area network and conversion of word processing, which upgraded the Regional Office to a new generation of information technology;
- ◆ organizing successful transfer of Special Agricultural and Rural Development Agreement program staff and other resources to the new Aboriginal Economic Program group, and representing the region on the national native transition task force; and
- ◆ managing the payment process on the B.C. Industrial Commercial Arbitration Centre.

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## Northwest Territories

**T**he principal area of activity of the Northwest Territories office for the 1989-90 fiscal year continued to be the delivery of funded programs to the tourism and small business sectors. Funded programming for aboriginal clients was handled by the inception of programs under the Canadian Aboriginal Economic Development Strategy.

The year under review was the final year of the Subsidiary Agreement on Tourism Development under the Canada-N.W.T. Economic Development Agreement. Over the life of the subsidiary agreement, 183 projects were approved, for a total ISTC commitment of \$7 624 746. A total of 45 projects were approved under the Small Business Development Subsidiary Agreement. These

represent an ISTC commitment of \$1 474 231. A one-year extension of this subsidiary agreement (to March 31, 1991) was obtained.

The department continued to provide a range of non-funded services, notably BOSS, to the N.W.T. business community. Programs such as the Program for Export Market Development and the Advanced Manufacturing Technology Application Program were also promoted.

The ISTC office continued to provide many of the services of an international trade centre, especially supplying information to potential exporters and arranging meetings between the business community and EAITC personnel.

**O**ver the course of the 1989-90 fiscal year, the Yukon office focused its activities on making Yukon industry more competitive by expanding international marketing efforts, supporting tourism, brokering financing, developing a science network and keeping in touch with science leaders. As well, it continued payouts and monitoring under the expired Special Agricultural and Rural Development Agreement program and the Canada-Yukon Tourism Subsidiary Agreement, and distributed information on all nationally applicable programs from the Business Service Centre.

The sixth annual trade mission to Alaska took Canadian firms to Anchorage. Canada again hosted the grand opening and ribbon-cutting of the Alaska State Chamber of Commerce Trade Fair. Market Place '89 brought trade commissioners from the Pacific Rim countries to Whitehorse to answer questions from Yukon exporters about their markets. This event was accompanied by the first-ever Doing Business in Japan seminar. The Alaska State Chamber of Commerce board of directors was hosted in Whitehorse, and four Yukoners accompanied that state chamber's first-ever trade mission to the Soviet Union. The office also scheduled and hosted a major tour by Mitsui.

Yet another highlight was the first international procurement seminar, with speakers from the Alaskan, Canadian and Yukon governments.

The Canada-Yukon Science and Technology Memorandum of Understanding continued to operate, and a network of science contacts was built, including the Alaska Science and Technology Foundation.

The Canada-Yukon Small Business Incentives Subsidiary Agreement provides assistance for the establishment, expansion or modernization of manufacturing or processing operations and for service operations providing selected support activities to the industrial or resource sectors. During the 1989-90 fiscal year, the departmental portion of offers made and accepted was \$32 025 for two projects. Total commitments for the year were \$81 025 for three projects.

The office also sent investment counsellors around the world a profile on the major Yukon investment opportunities, and continued its efforts to encourage Canadian sourcing. Finally, ISTC Yukon participated in the planning of the third Northern Regions Conference, at which the 11 northern nations will again get together to discuss science, technology, environment, economy, trade and tourism in the North.





# Annexes

# Annex A-1

## Total Accepted Offers and Authorized Assistance by Province or Territory (includes loan insurance)

Province or Territory	Number of Projects	Authorized Assistance (\$ thousands)
Newfoundland	12	685
Prince Edward Island	7	197
Nova Scotia	23	2 447
New Brunswick	9	3 696
Quebec	580	377 110
Ontario	371	225 083
Manitoba	114	10 069
Saskatchewan	100	25 969
Alberta	160	19 749
British Columbia	116	25 721
Yukon	22	925
Northwest Territories	30	3 520
<b>Total</b>	<b>1 544</b>	<b>695 170</b>

### Notes:

The \$695 million in authorized assistance reported here includes \$647 million in grants and contributions and \$48 million in loan insurance. The latter is split between seven projects for \$6 million in Quebec and two projects for \$42 million in Ontario.

The authorized assistance includes all the department's major funded programs with the exception of the *Small Businesses Loans Assistance (SBLA)*, Canada Scholarships and a few smaller programs. The SBLA is described in Annex F, while the Canada Scholarships Program is described on Page 13 of this report. The funding for the other smaller programs not covered in the annexes represents about \$10 million in authorized assistance.

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## Annex A-2

### Total Accepted Offers and Authorized Assistance by Major Program Group (includes loan insurance)

Major Program Group	Number of Projects	Authorized Assistance (\$ thousands)
Industry, Science and Technology Programs	730	505 767
Regional Development Programs	468	128 856
Aboriginal Economic Programs	346	60 547
<b>Total</b>	<b>1 544</b>	<b>695 170</b>

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## Annex B-1

### Industry, Science and Technology Programs Accepted Offers and Authorized Assistance (includes loan insurance)

Province or Territory	Number of Projects	Authorized Assistance (\$ thousands)
Newfoundland	11	555
Prince Edward Island	7	197
Nova Scotia	21	2 382
New Brunswick	5	633
Quebec	189	256 331
Ontario	230	200 155
Manitoba	40	3 413
Saskatchewan	21	20 040
Alberta	140	9 084
British Columbia	61	12 773
Yukon	5	205
Northwest Territories	-	-
<b>Total</b>	<b>730</b>	<b>505 767</b>

## Annex B-2

### Defence Industry Productivity Program Accepted Offers and Authorized Assistance

Province	Number of Projects	Authorized Assistance (\$ thousands)
Nova Scotia	1	247
Quebec	30	165 834
Ontario	65	111 088
Manitoba	1	294
Alberta	3	1 122
British Columbia	5	1 196
<b>Total</b>	<b>105</b>	<b>279 781</b>

Major Industry Group		
Plastic Products Industries	1	425
Primary Metal Industries	2	603
Fabricated Metal Industries (not Machinery/Transport)	12	4 364
Machinery Industries (not Electric Machinery)	1	480
Transportation Equipment Industries	56	228 469
Electrical/Electronic Products Industries	30	44 563
Chemical/Chemical Products Industries	2	428
Other Manufacturing Industries	1	449
<b>Total</b>	<b>105</b>	<b>279 781</b>

Sub-program		
Research and Development	22	187 651
Source Establishment	22	57 357
Capital Assistance	61	34 773
<b>Total</b>	<b>105</b>	<b>279 781</b>

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# Annex C

## Regional Development Programs

### Accepted Offers and Authorized Assistance

(includes loan insurance)

<b>Province</b>	<b>Number of Projects</b>	<b>Authorized Assistance (\$ thousands)</b>
Quebec	356	117 090
Ontario	112	11 766
<b>Total</b>	<b>468</b>	<b>128 856</b>

# Annex D

## Total Aboriginal Economic Programs Accepted Offers and Authorized Assistance (includes loan insurance)

Program	Number of Projects	Authorized Assistance (\$ thousands)
Aboriginal Business Development	3	192
Native Economic Development	166	52 593
Special ARDA	139	6 035
<b>Sub-total</b>	<b>308</b>	<b>58 820</b>
Northern Development Agreements	24	1 091
<b>Total</b>	<b>332</b>	<b>59 911</b>
<b>Province or Territory</b>		
Newfoundland	1	130
Nova Scotia	2	65
New Brunswick	4	3 063
Quebec	35	3 689
Ontario	29	13 161
Manitoba	74	6 656
Saskatchewan	79	5 929
Alberta	20	10 665
British Columbia	55	12 948
Yukon	17	720
Northwest Territories	30	3 520
<b>Total</b>	<b>346</b>	<b>60 546</b>

# Annex E

## Subsidiary Agreements under ERDAs and GDAs Active During 1989-90

<b>Agreement</b>	<b>Duration</b>	<b>ISTC Share (\$ thousands)</b>	<b>Authorized Assistance (\$ thousands)</b>
<b>Newfoundland</b>			
Tourism Development	16-08-84 to 31-03-89	12 500	238
<b>Prince Edward Island</b>			
Tourism Development	26-10-84 to 31-03-89	5 800	197
<b>Nova Scotia</b>			
Tourism Development	09-11-84 to 31-03-89	19 600	2 075
<b>Quebec</b>			
Tourism Development	01-04-88 to 31-03-93	48 500	1 058
Industrial Development	01-04-88 to 31-03-93	175 000	68 244
Canada-Quebec Economic Development	01-06-88 to 31-03-93	217 500	39 111
Scientific Technical Development	01-04-88 to 31-03-93	35 800	9 184
<b>Ontario</b>			
Tourism Development	20-11-84 to 31-10-89	22 000	5 996
<b>Manitoba</b>			
Tourism Development	13-05-85 to 31-03-90	15 000	2 496
Urban Bus Industrial Development	04-06-84 to 31-03-89	25 121	329
<b>Saskatchewan</b>			
Advanced Technology	31-08-84 to 31-03-89	16 600	705
Northern Economic Development	31-08-84 to 31-03-89	18 000	1 091
Tourism Development	22-11-84 to 31-03-89	15 000	1 179
<b>Alberta</b>			
Northern Development	02-10-85 to 31-03-90	20 000	3 424
Tourism Development	13-05-85 to 31-03-89	28 186	2 387
<b>British Columbia</b>			
Tourism Industry Development	21-08-85 to 31-03-90	15 000	3 076
Science and Technology Development	08-07-85 to 31-03-90	10 100	4 000
<b>Yukon</b>			
Small Business Incentives	06-01-87 to 31-03-91	3 220	205



# Annex F

## Small Businesses Loans Act

### Number and Amount of Loans\*

Province or Territory	Number of Loans	(\$ millions)
Quebec	4 355	177.8
Ontario	3 833	175.5
Yukon and the Northwest Territories	85	3.1
<b>Total</b>	<b>8 273</b>	<b>356.3</b>

Type of Business	Number of Loans	(\$ millions)
Fishing	12	0.4
Wholesale Trade	231	7.9
Retail Trade	2 202	103.2
Construction	571	18.5
Manufacturing	896	35.4
Service Businesses	3 706	164.7
Transportation	563	23.1
Communications	92	3.3
<b>Total</b>	<b>8 273</b>	<b>356.4</b>

\* Loans made in the four Atlantic provinces (1 121 loans for \$36.9 million) fall under the responsibility of the Minister of State (Small Businesses and Tourism) for the purposes of the *Atlantic Canada Opportunities Agency Act*.

Loans made in the four western provinces (4 387 loans for \$145.9 million) fall under the responsibility of the Minister of Western Economic Diversification.





